Findings Across 11 Years of Data from the Young Adult Health Survey

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Before we get started...

- Special thank you to Sarah Mariani, Kasey Kates, and Rachel Oliver
- Thank you to Dr. Sarah Okey, Kristen Haley, Chair Jim Vollendroff, and Gretchen Frost

Washington Young Adult Health Survey (YAHS)	 Funded by Division of Behavioral Health & Recovery (DBHR): Sarah Mariani Kasey Kates Rachel Oliver Megan Stowe Young Adult Health Survey Team: Jason Kilmer Mary Larimer Rose Lyles-Riebli Joseph Lambuth Isaac Rhew Washington State Health Care Authority (Division of Behavioral Health and Recovery) (Pt: Kilmer).

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 nonweighted

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Young Adult Health Survey

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

Sample sizes ov	er 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
 Cohort 11 (2024): 	1,751
• TOTAL:	20,462

Young Adult Health Survey

 In 2024, we also followed up with each of the previous 10 cohorts (participants in Cohort 1, 18-25 in 2014, were largely 28-35 when we collected data from them in 2024)

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What do we see with eleven years of data?

18-20 43.27% 44.82% 40.94% 43.41% 44.42% 43.68% 40.39% 44.89% 39.11% 36.57% 39.00%

Source: Young Adult Health Survey, Preliminary Data Report to DBHR, March 2025, Kilmer (PI)

21-25 43.67% 47.09% 46.55% 49.75% 50.87% 49.61% 52.29% 55.21% 53.60% 51.90% 52.00% 49.76% TOTAL 43.51% 46.29% 44.76% 47.43% 48.49% 47.24% 47.94% 51.19% 47.26% 46.24% 46.44% 46.91%

Any past year "recreational"/non-medical/personal use: Significant decreasing trend for 18-20, increasing trend for 21-25

Model split by over/under 21

18-20: Newly significant decreasing trend (t = -2.31, p<.05)

21-25: Significant increasing trend over time (t=5.36, p<.001)

 Cohort
 Cohort< across 11 vears 42.18%

Total



18-20 43.27%

11





	At lea							medio han C			al 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)	Cohort 9 (2022)	Cohort 10 (2023)	Cohort 11 (2024)	Total across 11 years
18-20	24.08%	24.88%	21.19%	23.56%	27.06%	23.24%	23.17%	24.16%	26.21%	20.15%	24.21%	23.85%
21-25	23.63%	23.56%	25.12%	28.07%	27.88%	29.55%	33.81%	33.86%	31.65%	30.87%	29.06%	28.33%
TOTAL	23.81%	24.03%	23.84%	26.46%	27.62%	27.09%	29.90%	30.11%	29.19%	26.87%	26.98%	26.67%
	pared to 0			y higher p	revalence	for	\bigcirc	\cup	\cup		\smile	
:	Cohort	6 (t=2.08,	p<.05; od	ds ratio =	1.189, Col	nort 6 has	19% high	er odds of	non-medi	ical cannal	ois use tha	n Cohort 1) n Cohort 1)
	Cohort	8 (t=3.88,	p<.001; o	dds ratio :	= 1.379, Co	ohort 8 ha	s 38% hig	ner odds o	f non-med	dical canna	abis use th	nan Cohort 1) an Cohort 1) n Cohort 1)
•								gher odds BHR, Mar				han Cohort 1)



















Source: Young Adult Health Survey, Preliminary Data Report to DBHR, March 2025, Kilmer (PI) At least weekly non-medical (or "recreational") use by age group



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7/15/2025

Non-medical use	e, categ	ories of	freque	ncy, who	ole samp	ble							
	Cohort	Cohort	Cohort	Cohort (Cohort	Cohort	Cohort (Cohort Co	ohort (Cohort	Cohort		
	1	2	3	4	5	6	7	8	9	10	11		
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		
Never	56.49%	53.71%	55.24%	6 52.57%	51.51%	52.76%	52.06%	48.81%	52.749	53.76%	53.56%		
Once a year	7.53%	8.28%	8.00%	6.36%	6.67%	6.41%	5.86%	7.13%	5.70%	5.75%	6.19%		
2-3x/year	8.58%	9.60%	9.72%	10.21%	10.52%	9.77%	8.76%	9.79%	9.23%	9.38%	9.62%		
Every other month	3.59%	4.38%	3.20%	4.40%	3.68%	3.97%	3.42%	4.15%	3.13%	4.25%	3.64%		
Once a month	3.15%	3.55%	3.06%	3.58%	3.24%	3.72%	4.29%	3.67%	2.87%	2.33%	4.30%		
2-3x/month 3.94% 5.24% 3.94% 5.51% 5.35% 4.77% 4.77% 4.82% 6.86% 3.70% 4.92%													
1x/week 2.49% 2.75% 2.90% 2.38% 2.61% 2.92% 3.36% 3.23% 3.12% 3.43% 2.99%													
More than 1x/wk 5.26% 4.39% 4.63% 4.29% 4.81% 4.63% 5.25% 6.36% 5.16% 4.37% 4.73%													
Every other day	2.63%	3.44%	2.35%	3.55%	3.60%	2.85%	3.93%	4.29%	3.06%	2.64%	2.21%		
Every day	6.34%	4.65%	6.97%	7.14%	8.01%	8.19%	8.30%	7.74%	8.14%	10.39%	7.82%		
Cohort 4 <u>Linear tr</u>	end fro	m Cohor	t 1 to Co	hort 11:					an Coho	ort 1.			
Significar	nt increa	asing tre	na over	time (t=3	г. /9, p<.(JU1, Odd	is ratio =	1.019)					
Source: You	ing Adult	t Health S	Survey, Pr	eliminary	Data Rep	ort to DB	HR, March	n 2025, Kil	mer (PI)				









	ohort 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	Cohort 11 2024	
Never C	2.41%	2.42%	1.61%	2.31%	2.06%	1.50%	2.38%	1.92%	3.05%	2.44%	3.27%	
Once a year	1.82%	2.10%	1.74%	1.92%	1.27%	0.75%	1.32%	1.15%	1.37%	1.01%	1.29%	7
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%	3.75%	
Every other month	6.98%	7.29%	5.32%	4.59%	3.14%	3.90%	4.42%	3.48%	2.93%	3.37%	4.13%	
Once a month	9.74%	11.15%	10.41%		6.88%	5.51%	6.39%	7.07%	6.63%	6.66%	9.09%	
2-3x/month	17.98%	19.68%	19.83%	18.91%	13.47%	13.93%	14.32%	14.04%	14.38%	12.69%	15.03%	
Once per week	12.65%	12.72%	15.43%	13.89%	14.28%	12.91%	12.64%	14.11%	13.24%		14.18%	
More than 1x/wk	22.08%	20.70%	21.42%	23.94%	27.12%	25.90%	28.57%	29.17%	25.76%	26.73%	23.44%	
Every other day	9.27%	6.87%	8.56%	8.65%	11.10%	12.25%	13.10%	10.45%	13.14%		11.06%	_
Every day 🛛 🧲	8.84%	6.95%	8.96%	10.31%	16.79%	20.03%	14.62%	14.75%	15.57%	19.02%	14.74%	_
** In ordina p<.001), Col perceived no **	ort 8 (t=9. n-medica	.02, p<.00 I cannabis	1), Cohort norms co.	9 (t=8.10) mpared to	, p<.001), cohort 1;	Cohort 10 (but cohort	t=9.55, p<. 2 has lowe	001), and (ohort 11	(t=6.50, p<.	001) have	hi
		n micreusi	ng mileur i	rena over	nune fe-Te		·/					
** Overall, a Cohort 11, 1												



From Frend 72.86% 76.26% 96.86% 77.40% 93.25% 92.67% 95.86% 82.09% 93.06% 77.40% 93.25% 93.26% 95.86% 83.06% 15.06% 93.26% 93.	Increasing trend	l significan significant								urvey, Pre 2025, Kiln		
1014 2015 2016 2017 2018 2019 2020 2022 2022 2023 2025 Creme Mission 21256 26326 66387 55385 55485<				18-20-ye	ear-olds							
From Kends 72,86% 76,26% 96,86% 77,40% 91,37% 92,												
Gave moving to someone 23.22% 24.77% 44.55% 19.20% 41.17 40.55% 39.80% 37.42% 33.36% 15 Gold R from someone 23.22% 24.77% 44.55% 19.20% 41.17% 40.55% 39.80% 37.42% 33.36% 15.5% Gold R from someone 11.05% 16.29% 5.5% 4.77% 6.5% 2.27% 4.27% 4.5% 4.0% 1.6% 5.0% 6.2% 6.1% 12.0% 3.6% 7.5% 6.9 Gold R from Someone 20.00% 24.2% 20.1% 2.0% 8.4% 12.0% 5.6% 1.0% 5.6% 1.0%	From friends											2024 63.889
Gott Emergeneous w/f 32.00x 14.12% 4.30% 5.24% 2.79% 2.82% 4.27% 4.59% 4.10% 1.62% 5.00% Gott Emergeneous medical and Generative medical content content 10.09% 5.58% 4.72% 6.50% 8.24% 4.10% 1.62% 5.09% Generative medical content content Content content												35.459
Section service 12.6% 12.6% 5.5% 4.72% 6.50% 8.28% 8.41% 12.0% 3.40% 7.5% 6.5 Gold Home sender End of the sender End of the sender End of the sender 10.40% 10.40% 7.5% 6.41% 12.0% 3.40% 7.5% 6.5 Gold Home sender 20.10% 2.40% 20.12% 2.21% 8.82% 4.67% 16.43% 10.98% 13 Gold Home sender 5.5% 5.15% 1.02% 11.44% 10.92% 11.44% 7.09% 11.26% 9.67% 8.25% 2.01% 3.26% 3.62% 3.28% 1.24% 10.92% 11.44% 10.99% 1.24% 0.22% 1.44% 10.95% 3.28% 3.28% 3.28% 1.24% 0.24% 1.24% 0.24% 3.28% 1.24% 1.24% 1.24% 0.24% 1.24% 1.24% 1.24% 1.24% 1.24% 1.24% 1.24% 1.24% 1.24% 1.24% 1.24% 1.24% 1.24% <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>5.02%</td></td<>												5.02%
dispersion End of the form of from Call perior/Second Get It from family 22.99% 22.14% 23.08% 24.92% 20.21% 20.91% 8.82% 24.67% 16.43% 10.98% 13. 0.95% 5.03% 11.24% 5.02% 13.42% 6.02% 13.42% 7.09% 11.36% 9.07% 5.5 Get It from family 5.69% 5.18% 1.12% 9.02% 7.00% 6.24% 3.62% 3.62% 3.62% 3.62% 3.62% 3.62% 3.62% 3.62% 3.62% 3.62% 3.62% 3.62% 3.62% 1.64% 1.65% 5.75% 6.24% 3.62% 1.63% 1.72% 5.75% 1.64% 1.62% 1.64% 1.63% 3.62% 1.53% 1.75% 5.75% 1.64%<		17.00%	14.1276	4.30%	5.2476	2./976	2.8270	4.27%	4.58%	4.10%	1.6276	5.0276
Gott Enter sporty 22.90% 22.146K 23.00% 24.29% 21.12% 22.91K R.24K 26.67K 16.44K 10.99K 10.95K Gott Enternsfundly 5.65% 5.18% 11.25% 9.25K 12.05K						6.50%	8.28%	8.41%	12.03%	3.40%	7.53%	6.96%
Gott from family 5.85% 5.18% 11.75% 9.75% 11.24% 10.29% 7.34% 7.09% 11.34% 9.07% 9.5 Gott is monthly more than used 1.164% 4.12% 6.12% 9.02% 7.30% 6.21% 5.04% 6.24% 3.26% 3.26% 1.36% 9.5 Bought from reality 0.95% 1.73% 9.27% 7.30% 6.21% 5.04% 6.24% 3.26% 3.26% 1.36% 4.28% 4.	dispensary newly signific	ant trend fr	om last ye	ar's report								
Gold is some other way 11.64% 41.2% 6.12% 9.02% 7.30% 6.21% 5.01% 6.24% 3.65% 4.28% 2.2 Bought from retail store 0.99% 4.58% 1.73% 1.92% 2.03% 3.55% 1.58% 1.03% 3.08% 1.03% 3.08% 1.03% 3.08% 1.03%	Got it at a party	22.99%	22.14%	23.08%	24.92%	20.12%	22.91%	8.82%	24.67%	16.43%	10.98%	13.569
Bought from retail store 0.99% 4.58% 1.73% 1.92% 2.03% 3.55% 1.58% 1.03% 3.08% 1.53% 1.75% <th1.75%< th=""> 1.75% 1.75</th1.75%<>	Got it from family	5.65%	5.18%	11.75%	9.75%	11.24%	10.92%	13.49%	7.09%	11.36%	9.67%	9.52%
Got II from parents w/ 5.75% 6.02% 12.33% 10.44% 11.69% 12.91% 13.08% 13.91% 12.38% 15.77% 14. permission/listic "Develse with prevension remains the third most environed source by 18-20 year-data 5.75% 6.4 5.75% 6.4 5.75% 6.4 5.75% 6.4 5.75% 6.4 5.75% 6.4 5.75% 6.4 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 5.75% 6.45% 6.25% 5.5% 1.85% 6.25% 5.5% 1.85% 6.25% 5.5% 1.85% 6.25% 5.5% 1.85% 6.25% 5.5% 1.85% 6.25% 5.5% 1.85% 5.5% 1.85% 5.5% 6.25% 6.25% 6.25% 6.25% 6.25% 6.25% 5.5%	Got it some other way	11.64%	4.12%	6.12%	9.02%	7.30%	6.21%	5.04%	6.24%	3.62%	4.28%	2.20%
permission Note: ** Parents with permission remains the third most mentioned source by 18-20-year-olds ** Grew it themselves 1.91% 1.15% 1.65% 0.23% 1.47% 2.78% 1.64% 0.42% 0.59% 0.56% 1.8	Bought from retail store	0.99%	4.58%	1.73%	1.92%	2.03%	3.55%	1.58%	1.03%	3.08%	1.53%	1.71%
Grew it themselves 1.91% 1.15% 1.65% 0.23% 1.47% 2.78% 1.64% 0.42% 0.59% 0.56% 1.8	Got it from parents w/	5.75%	6.02%	12.33%	10.44%	11.69%	12.91%	13.08%	13.91%	12.38%	15.77%	14.00
	permission Note: ** Pare	nts with pe	rmission re	mains the	third mos	t mentione	d source l	by 18–20-	year-olds*			
Stole it from store/ 0.00% 0.00% 0.00% 0.00% 0.00% 4.16% 2.40% 0.00% 0.57% 0.3	Grew it themselves	1.91%	1.15%	1.65%	0.23%	1.47%	2.78%	1.64%	0.42%	0.59%	0.56%	1.85%
	Stole it from store/	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.16%	2.40%	0.00%	0.57%	0.36%

Increasing trend significa	int				L	Data Rep	ort to DE	HR, Mar	:n 2025, i	Kilmer (PI)	
	Cohort 1 (2014	Cohort 2 (2015	Cohort 3 0 2016	Cohort 4 2017	Cohort 5 2018	2019	2020	2021	Cohort 9 2022	Cohort 10 2023	2024
From friends	67.50%	54.89%	42.78%	36.51%	33.80%	25.72%	20.26%	26.44%	26.04%	21.17%	26.70%
Gave money to someone	19.87%	10.72%	8.10%	5.64%	4.97%	3.63%	5.08%	4.61%	7.75%	4.46%	1.27%
Got it from someone w/ medical card	18.85%	9.41%	2.53%	2.02%	0.17%	0.65%	0.27%	0.62%	1.16%	1.03%	0.21%
Sot it from a med. dispensary	20.65%	13.03%	12.60%	9.96%	10.15%	14.23%	14.71%	15.62%	16.02%	16.90%	9.85%
Got it at a party	11.81%	10.76%	10.93%	8.06%	6.54%	5.76%	1.57%	7.12%	10.93%	3.87%	6.94%
Got it from family	11.48%	8.26%	4.08%	7.04%	5.76%	4.37%	4.02%	5.52%	4.56%	4.04%	5.74%
Got it some other way	5.13%	6.68%	3.29%	3.41%	3.71%	3.71%	1.24%	2.13%	1.85%	1.97%	1.29%
Bought from retail store	8.80%	51.86%	72.60%	76.31%	80.06%	78.03%	77.27%	74.42%	70.93%	72.28%	78.099
Sot it from parents w/ permission	4.56%	3.50%	2.02%	4.28%	4.47%	3.15%	2.75%	4.75%	4.41%	5.79%	1.97%
Grew it themselves	1.51%	3.01%	1.49%	1.82%	1.81%	0.71%	1.11%	1.74%	0.79%	1.16%	0.86%
Stole it from store/ dispensary	2.84%	0.17%	0.60%	0.29%	0.17%	0.11%	0.97%	0.43%	0.69%	0.78%	0.46%

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Source: Young Adult Health Survey, Preliminary Data Report to DBHR, March 2025, Kilmer (PI)

- Model with cohort x are interaction significant for:

 Gatting cannabis from friends: decline is stronger for those 21-25 compared to those 18-20 (ts <-4.43, p < .01)</td>

 Gave more to someone: increasing for those 18-20, decreasing for those 21-25 (ts <-6.63, p < .001)</td>

 Got it from someone w/med. cannabis card: those 18-20, decreasing for those 21-25 (ts <-6.63, p < .001)</td>

 Got it from someone w/med. cannabis card: those 11-14 dataper declining term than <21 (ts <-4.14, p < .001)</td>

 Got it from someone w/med. cannabis card: those 11-25 (ts <-2.45, p <-2.45,

	Cohort 1	Cohort 2	Cohort 3	Cohort 4	Cohort 5	Cohort 6	Cohort 7		Cohort 9		Cohort 1
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Never	50.59%	55.29%	58.19%	58.56%	58.73%	61.80%	65.00%	66.38%	64.649		
1 time	14.13%	13.13%	12.50%	12.85%	12.11%	8.32%	9.56%	10.25%	10.279		10.159
2-3 times	13.28%	12.34%	11.97%	11.98%	10.59%	11.66%	11.24%	10.51%	11.509		10.099
4-5 times	6.43%	4.35%	3.48%	4.48%	6.04%	4.00%	4.51%	4.39%	2.53%	3.40%	2.65%
6 or more time	s 15.57%	14.88%	13.85%	12.12%	12.52%	14.21%	9.69%	8.47%	11.059	10.38%	9.02%
**Ther	e are declin	es in drivin	after can	nabis use b	etween col	orts 3-11 d	and cohort	1 (cohort 3,	p<.05; col	hort 4, p<.0.	1; cohort 5
nc 05:	cohort 6, p<	.01: cohort	7. p<.001:	cohort 8. p	<.001: coh	ort 9. p<.00	1: cohort 1	0. p<.001:	cohort 11.	p<.001), as	well as a

Source: Young Adult Health Survey, Preliminary

	Cohort 1 (2014)	Cohort 2	WIY Si Cohort 3	gnific	Cohort	Cohort 6	in pa sing t ^{Cohort} 7 (2020)	rend	OVEr 1 Cohort 9	Cohort 10 (2023)	Cohort 11 (2024)	Total across 11 years	
18-20	14.02%	12.73%	8.33%	12.02%	12.90%	11.75%	11.43%	11.04%	10.20%	9.11%	7.92%	11.16%	
21-25	21-25 15.20% 15.53% 14.77% 16.83% 16.80% 18.05% 15.04% 15.18% 13.37% 14.21% 10.25% 15.26%												
TOTAL	TOTAL 14.74% 14.54% 12.68% 15.04% 15.42% 15.53% 13.71% 13.54% 11.96% 12.22% 9.25% 13.71%												
Regression models: Cohort 9 (t=-1.97, p<.05) and Cohort 11 (t=-4.55, p<-001) significantly lower than Cohort 1 Linear trend from Cohort 1 to 11:												n Cohort 1	
	Source:	Young Ad	lult Healti	n Survey, I	Prelimina	ry Data Re	port to D	BHR, Mar	ch 2025,	Kilmer (P	1)		





Medical cannabis

• Perceptions of medical use continue to increase significantly (both a linear trend, and past 8 cohorts higher than cohort 1)

Source: Young Adult Health Survey, Preliminary Data Report to DBHR, March 2025, Kilmer (PI)

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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 (down to
- 1.94%...lowest in the 11 years of the study)
- Heroin use, at least once in the past year (down to 0.07%, second lowest only to 0.00% in 2022))

Source: Young Adult Health Survey, Preliminary Data Report to DBHR, March 2025, Kilmer (PI)

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Source: Young Adult Health Survey, Preliminary Data Report to DBHR, March 2025, Kilmer (PI)

Perceived risk

- Cannabis
 Physical risk of occasional cannabis use
 Psychological/emotional/cognitive risk of occasional cannabis use
 Psychological/emotional/cognitive risk of regular cannabis use
 Psychological/emotional/emotional/cognitive risk of regular cannabis use
 Psychological/emotional/emotional/emotional/emotional/emotional/emotional/emotional/emotiona
- 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

** newly non-significant ** significant increasing

Next Steps

- We invited collaborators/partners to provide input on new items
- ${\ensuremath{\cdot}}$ We have launched our 12^{th} year of data collection
- We have prepared a press release about these findings (and to provide access to resources)

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Thank you!

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