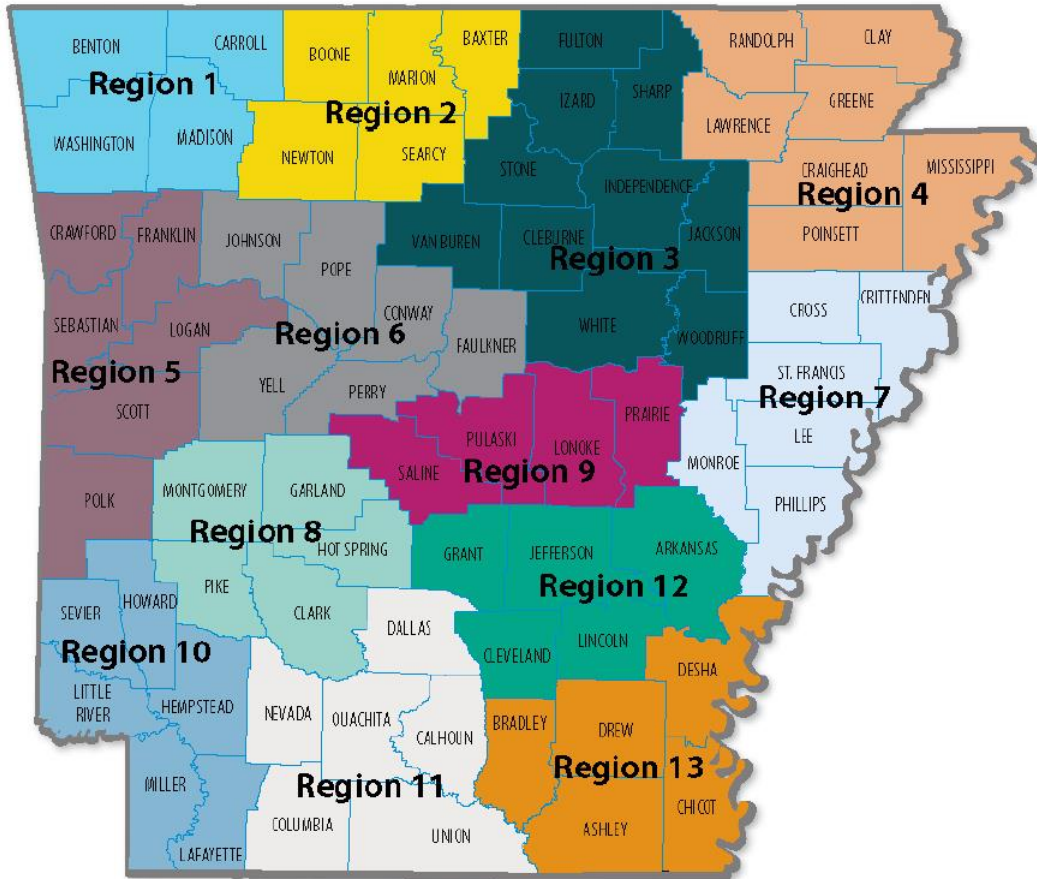


Regional Substance Use Trends



- Analysis of APNA data
 - Regional-level estimation of substance use and perceived risk rates
 - State-level estimation & model sensitivity

Regional Substance Use Trends

- Estimation of trends in rates of:
 - APNA Self-reported past 30 day use of 8 substances:
 - Alcohol, Cigarettes, Marijuana, RX drugs, Smokeless tobacco, Vaping(flavor, marijuana, nicotine)
 - APNA Perceived moderate/great risk of 8 substances (protective factor):
 - Alcohol(daily, weekend), Cigarettes, E-cigarettes, Marijuana, RX drugs, Vaping(occasionally, regularly)
- Infographic displays for each region
- Statistical methodology notes:
 - 2021 to 2024 APNA data
 - Rates modeled by log-binomial regression
 - Including all results from each year

Regional Substance Use Trends

- General question: "The following questions ask about substances used in the past 30-Days. On how many occasions (if any) have you:" (used this substance)

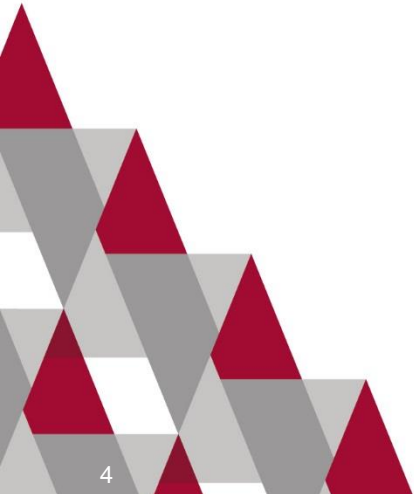
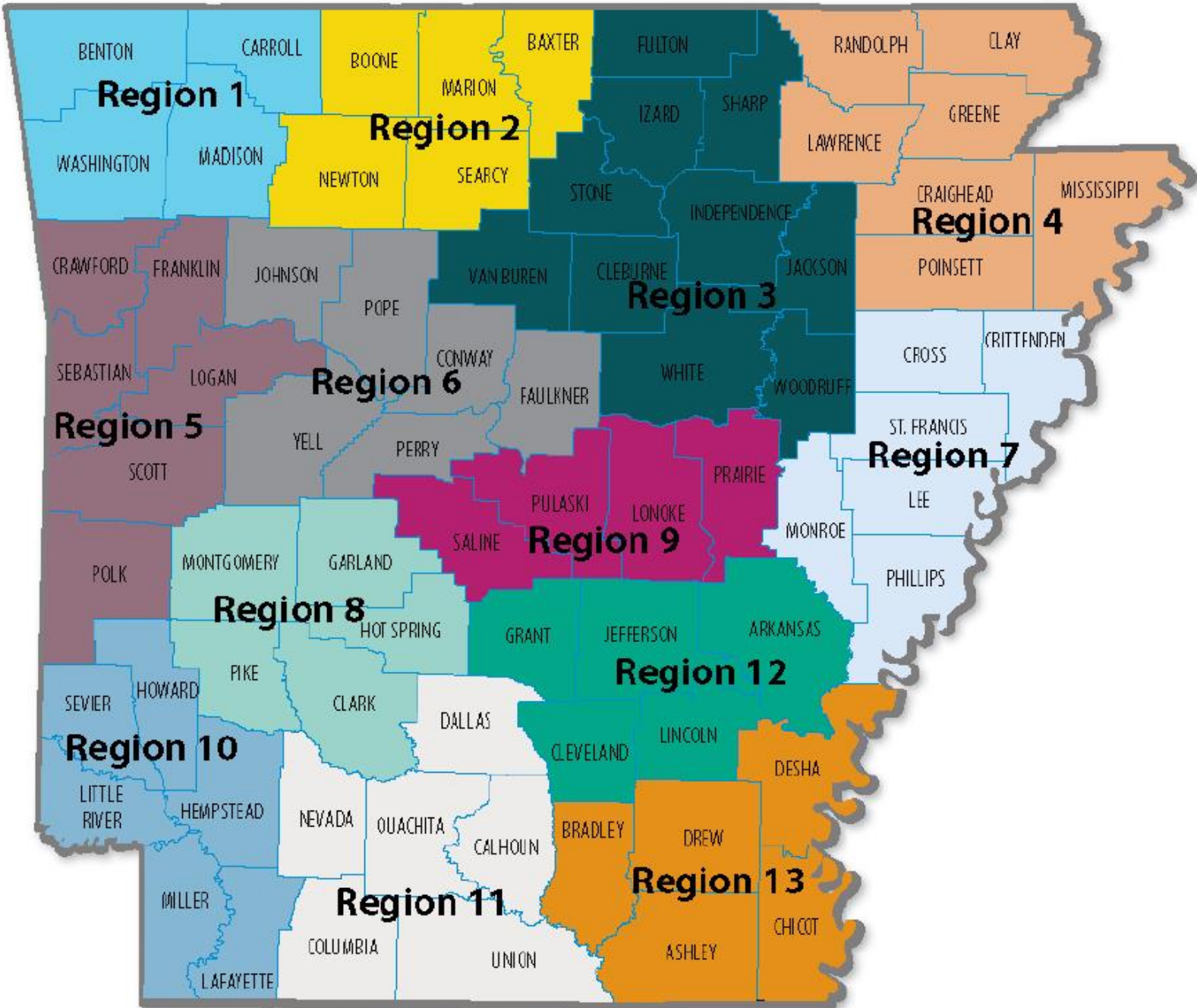
- 1) 0
 - 2) 1-2
 - 3) 3-5
 - 4) 6-9
 - 5) 10+
- } Any Use vs. No use



- General question: "How much do you think people risk harming themselves (physically or in other ways) if they:" (use this substance)

- 1) No risk
 - 2) Slight risk
 - 3) Moderate risk
 - 4) Great risk
 - 5) Can't say, drug unfamiliar
- } Moderate/Great risk vs. No/Slight/Can't say





- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 1 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	=	▼	=	▼	-1.7
Cigarette	=	=	▼	▼	-0.5
Marijuana	=	▼	▼	▼	-1.5
RX drug	=	=	▼	▼	-0.7
Smokeless tobacco	=	=	=	▼	-0.3
Vaping(flavor)	=	▼	=	▼	-0.7
Vaping(marijuana)	=	▼	▼	▼	-1.1
Vaping(nicotine)	▼	▼	=	▼	-2.5
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	=	▲	▲	6.6
Alcohol(weekend)	=	=	▲	▲	4.9
Cigarettes	=	=	▲	▲	1.3
E-cigarettes	▲	=	▲	▲	5.1
Marijuana	▲	=	▲	▲	7.2
RX drug	▲	▼	▲	▲	2.4
Vaping(occasionally)	=	=	▲	▲	5.6
Vaping(regularly)	=	=	▲	▲	3.5

- Region 1
- Most notable results:
- Largest use changes: Vaping nicotine dropped 2.5%
- Largest risk perception changes: Marijuana and daily Alcohol increased by over 6.5%

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 2 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	▼	=	=	▼	-3.0
Cigarette	=	=	=	=	-0.8
Marijuana	=	=	▼	▼	-1.7
RX drug	=	=	=	=	0.2
Smokeless tobacco	=	=	=	=	-0.5
Vaping(flavor)	▼	=	=	=	-1.2
Vaping(marijuana)	▲	=	▼	=	-0.9
Vaping(nicotine)	=	=	=	▼	-3.5
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	=	▲	▲	6.3
Alcohol(weekend)	=	=	▲	▲	4.2
Cigarettes	▼	=	=	=	0.5
E-cigarettes	=	=	▲	▲	8.0
Marijuana	=	▲	▲	▲	6.9
RX drug	▼	=	▲	=	0.3
Vaping(occasionally)	=	▲	▲	▲	7.0
Vaping(regularly)	=	=	▲	▲	5.0

- Region 2
- Most notable results:
- Largest use changes: Vaping nicotine dropped by 3.5%
- Largest risk perception changes: E-cigarettes and occasional vaping increased by 7.0% or more

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 3 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	▼	=	=	▼	-2.9
Cigarette	=	=	=	▼	-1.1
Marijuana	=	▼	=	▼	-2.4
RX drug	=	=	=	=	-0.4
Smokeless tobacco	=	=	=	=	-0.5
Vaping(flavor)	▼	=	=	▼	-1.7
Vaping(marijuana)	=	▼	=	▼	-1.7
Vaping(nicotine)	▼	▼	=	▼	-5.0
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	=	▲	▲	8.0
Alcohol(weekend)	=	=	▲	▲	5.8
Cigarettes	=	=	=	=	0.4
E-cigarettes	=	▲	▲	▲	6.8
Marijuana	=	▲	▲	▲	7.6
RX drug	▼	=	=	=	-0.6
Vaping(occasionally)	=	▲	▲	▲	7.9
Vaping(regularly)	=	=	=	▲	3.9

- Region 3
- Most notable results:
- Largest use changes: Nicotine vaping dropped by 5.0%
- Largest risk perception changes: daily Alcohol, Marijuana, and occasional vaping all increased by over 7.5%

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 4 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	▼	=	=	▼	-3.9
Cigarette	=	=	=	▼	-0.9
Marijuana	=	=	▼	▼	-1.8
RX drug	=	=	=	=	-0.3
Smokeless tobacco	=	=	=	=	-0.5
Vaping(flavor)	=	=	=	=	-0.6
Vaping(marijuana)	=	=	=	▼	-1.3
Vaping(nicotine)	▼	▼	=	▼	-4.3
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	▲	▲	▲	6.1
Alcohol(weekend)	=	▲	▲	▲	4.6
Cigarettes	▼	=	=	=	-0.2
E-cigarettes	=	▲	=	▲	5.9
Marijuana	=	▲	▲	▲	6.6
RX drug	▼	=	▲	=	1.0
Vaping(occasionally)	=	▲	=	▲	6.0
Vaping(regularly)	=	▲	=	▲	3.8

- Region 4
- Most notable results:
- Largest use changes: nicotine vaping dropped by 4.3%
- Largest risk perception changes: Marijuana, daily Alcohol, and occasional vaping increased by 6.0% or more

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 5 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	=	=	=	=	-1.1
Cigarette	=	=	=	=	-0.1
Marijuana	=	=	▼	▼	-3.5
RX drug	=	=	=	=	-0.7
Smokeless tobacco	=	▲	=	=	0.0
Vaping(flavor)	▼	=	=	▼	-1.8
Vaping(marijuana)	=	=	▼	▼	-2.6
Vaping(nicotine)	▼	=	▼	▼	-3.6
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	=	▲	▲	5.8
Alcohol(weekend)	=	▲	▲	▲	5.1
Cigarettes	▼	▲	=	▲	3.2
E-cigarettes	=	▲	=	▲	8.8
Marijuana	=	▲	▲	▲	9.2
RX drug	=	▲	=	▲	4.0
Vaping(occasionally)	=	▲	▲	▲	8.8
Vaping(regularly)	=	▲	=	▲	6.5

- Region 5
- Most notable results:
- Largest use changes: Nicotine vaping and Marijuana dropped by 3.5% or more
- Largest risk perception changes: Marijuana, E-cigarettes, and occasional vaping increased by over 8.5%

- “=” indicates no significant change

- An up or down arrow indicates a statistically significant change in that direction

- Green arrows indicate a decrease in use or increase in risk perception

- Red arrows indicate an increase in use or decrease in risk perception.

Region 6 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	▼	=	▼	▼	-4.3
Cigarette	▼	=	=	▼	-1.6
Marijuana	▼	=	=	▼	-3.1
RX drug	=	=	▼	▼	-1.5
Smokeless tobacco	=	=	=	=	-0.1
Vaping(flavor)	▼	=	=	▼	-2.8
Vaping(marijuana)	=	=	▼	▼	-2.6
Vaping(nicotine)	▼	=	=	▼	-5.8
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	=	▲	▲	6.2
Alcohol(weekend)	=	▲	=	=	2.1
Cigarettes	=	=	=	=	-1.7
E-cigarettes	=	▲	=	▲	7.2
Marijuana	=	=	=	▲	6.3
RX drug	=	=	=	=	-1.0
Vaping(occasionally)	=	▲	▲	▲	8.3
Vaping(regularly)	=	▲	=	▲	4.4

- Region 6
- Most notable results:

- Largest use changes: Nicotine vaping dropped by 5.8%

- Largest risk perception changes: occasional vaping and E-cigarettes dropped by over 7.0%

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 7 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	=	=	=	=	3.0
Cigarette	=	=	=	=	-0.1
Marijuana	=	=	=	=	0.9
RX drug	=	=	=	=	-0.3
Smokeless tobacco	=	=	=	=	1.4
Vaping(flavor)	=	=	=	▲	4.1
Vaping(marijuana)	=	=	=	=	2.3
Vaping(nicotine)	▲	=	=	▲	7.0
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	=	▲	▲	12.2
Alcohol(weekend)	▲	=	=	▲	13.8
Cigarettes	▲	=	=	▲	10.3
E-cigarettes	▲	=	=	▲	15.8
Marijuana	▲	=	=	▲	13.1
RX drug	▲	=	=	▲	11.3
Vaping(occasionally)	=	▲	=	▲	11.1
Vaping(regularly)	▲	▲	=	▲	11.4

- Region 7
- Most notable results:
- Largest use changes: Vaping nicotine and Vaping flavor increased by over 4%
- Largest risk perception changes: E-cigarettes, weekend Alcohol, and Marijuana increased by over 13%

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 8 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	▲	▼	=	▼	-1.7
Cigarette	=	▼	=	▼	-0.9
Marijuana	=	▼	=	▼	-2.0
RX drug	=	=	=	=	0.2
Smokeless tobacco	=	▼	=	=	-0.1
Vaping(flavor)	=	▼	=	▼	-2.0
Vaping(marijuana)	▲	▼	=	▼	-1.6
Vaping(nicotine)	=	▼	=	▼	-3.1
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	=	▲	▲	6.2
Alcohol(weekend)	=	=	=	▲	3.2
Cigarettes	=	=	=	=	-0.0
E-cigarettes	=	=	=	▲	4.4
Marijuana	=	▲	=	▲	3.8
RX drug	=	=	=	=	-0.5
Vaping(occasionally)	=	▲	=	▲	4.8
Vaping(regularly)	=	=	=	▲	3.2

- Region 8
- Most notable results:
- Largest use changes: Nicotine vaping dropped by 3.1%
- Largest risk perception changes: daily Alcohol increased by 6.2%



- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 9 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	=	▼	=	▼	-1.9
Cigarette	=	=	=	=	-0.3
Marijuana	▲	▼	=	▼	-1.2
RX drug	=	=	▼	▼	-1.2
Smokeless tobacco	=	=	=	=	0.1
Vaping(flavor)	▲	▼	=	=	-0.3
Vaping(marijuana)	▲	▼	▼	=	-0.5
Vaping(nicotine)	=	▼	=	▼	-1.8
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	▼	▲	▲	▲	2.8
Alcohol(weekend)	▼	▲	▲	=	0.4
Cigarettes	▼	▲	=	▼	-1.5
E-cigarettes	=	▲	▲	▲	3.9
Marijuana	▼	▲	▲	▲	3.1
RX drug	▼	=	▲	▼	-2.0
Vaping(occasionally)	▼	▲	▲	▲	4.5
Vaping(regularly)	▼	▲	▲	▲	1.6

- Region 9
- Most notable results:
- Largest use changes: Alcohol and Nicotine vaping dropped by over 1.5%
- Largest risk perception changes: occasional vaping increased by 4.5% while RX drug decreased by 2%

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 10 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	=	▼	=	▼	-3.1
Cigarette	=	=	=	▼	-1.3
Marijuana	=	▼	=	=	0.3
RX drug	=	=	=	▼	-1.3
Smokeless tobacco	=	▼	=	▼	-1.3
Vaping(flavor)	=	=	=	▼	-2.3
Vaping(marijuana)	▲	▼	▲	=	1.0
Vaping(nicotine)	=	▼	=	▼	-3.8
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	=	=	▲	4.9
Alcohol(weekend)	=	=	=	=	1.3
Cigarettes	=	=	=	▼	-3.7
E-cigarettes	=	▲	=	▲	3.4
Marijuana	=	▲	=	=	-2.0
RX drug	=	=	=	▼	-2.8
Vaping(occasionally)	=	▲	=	=	0.8
Vaping(regularly)	=	=	=	=	0.3

- Region 10
- Most notable results:
- Largest use changes: Nicotine vaping and Alcohol dropped by over 3.0%
- Largest risk perception changes: daily Alcohol increased by 4.9% while Cigarettes decreased by 3.7%

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 11 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	▼	▲	=	=	-1.0
Cigarette	=	=	=	=	0.3
Marijuana	=	=	▼	=	-1.4
RX drug	=	=	=	=	-0.3
Smokeless tobacco	=	▲	=	=	-0.1
Vaping(flavor)	=	=	=	=	0.8
Vaping(marijuana)	=	=	=	=	0.1
Vaping(nicotine)	▼	▲	=	=	-0.6
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	▼	▲	▲	3.5
Alcohol(weekend)	=	▼	▲	=	0.6
Cigarettes	=	▼	▲	=	-2.0
E-cigarettes	=	▼	▲	▲	4.3
Marijuana	=	▼	▲	=	0.9
RX drug	=	▼	▲	=	-1.1
Vaping(occasionally)	=	▼	▲	=	0.9
Vaping(regularly)	=	▼	▲	=	1.3

- Region 11
- Most notable results:
- Largest use changes: No statistically significant changes
- Largest risk perception changes: E-cigarettes increased by 4.3%

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 12 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	=	=	▼	▼	-3.8
Cigarette	=	=	=	=	-0.6
Marijuana	=	▼	=	=	-1.2
RX drug	=	=	=	▼	-1.5
Smokeless tobacco	=	=	=	=	0.2
Vaping(flavor)	=	=	=	=	0.7
Vaping(marijuana)	=	=	=	=	0.0
Vaping(nicotine)	=	=	▼	▼	-3.3
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	▲	=	=	2.5
Alcohol(weekend)	=	▲	=	=	1.6
Cigarettes	▼	▲	▼	▼	-5.0
E-cigarettes	=	▲	=	▲	5.6
Marijuana	=	▲	=	▲	4.7
RX drug	=	=	=	=	-1.6
Vaping(occasionally)	=	=	=	▲	5.3
Vaping(regularly)	=	▲	=	=	1.8

- Region 12
- Most notable results:
- Largest use changes: Alcohol decreased by 3.8%
- Largest risk perception changes: Cigarettes decreased by 5.0% while E-cigarettes and occasional vaping increased by over 5.0%

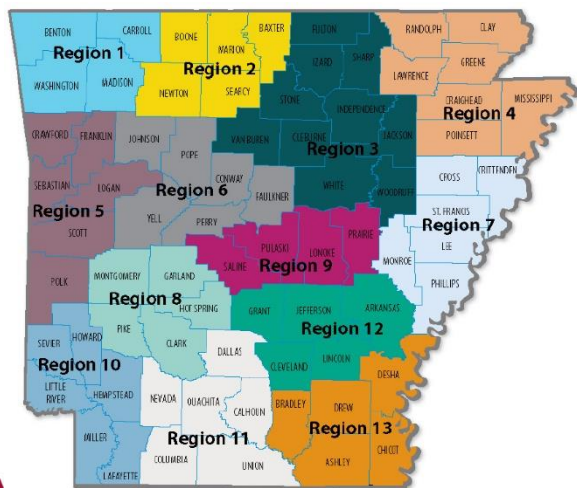
- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

Region 13 Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	▼	=	=	▼	-3.3
Cigarette	=	▼	▲	=	-0.1
Marijuana	▲	=	=	=	-0.8
RX drug	=	=	=	=	-0.9
Smokeless tobacco	=	=	=	=	-0.1
Vaping(flavor)	=	=	=	▼	-2.1
Vaping(marijuana)	▲	=	=	=	0.1
Vaping(nicotine)	=	▼	=	▼	-5.7
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	=	▲	▲	7.7
Alcohol(weekend)	=	=	=	▲	6.2
Cigarettes	=	=	=	=	0.8
E-cigarettes	=	=	=	▲	7.0
Marijuana	=	=	▲	▲	9.7
RX drug	=	=	▲	▲	4.4
Vaping(occasionally)	=	▲	=	▲	8.4
Vaping(regularly)	=	=	▲	▲	5.2

- Region 13
- Most notable results:
- Largest use changes: Nicotine vaping dropped by 5.7%
- Largest risk perception changes: Marijuana and occasional vaping increased by over 8.0%

Discussion / Regions Summary

- **Region 1:** Everything in “good” direction, biggest: nicotine vape use & marijuana risk
- **Region 2:** Few significant changes in use, non-sig. use increase: RX drug
- **Region 3:** Most changes sig. in “good”, non-sig. risk decrease: RX drug
- **Region 4:** Most changes sig. in “good”, non-sig. risk decrease: cigarettes
- **Region 5:** “Good” sig. changes: all risk & 1/2 of substances
- **Region 6:** “Good” sig. changes for most, non-sig. risk decrease: cig. & RX drug
- **Region 7:** “Good” sig. changes for all risk, sig. use INCREASE: vape flavor & nicotine
- **Region 8:** “Good” sig. changes for most, non-sig. use increase: RX drug
- **Region 9:** Sig. Risk DECREASE: Cig. & RX drug, non-sig use increase: smokeless tobacco
- **Region 10:** Sig. Risk DECREASE: Cig & RX drug, non-sig use increase: MJ & vape MJ
- **Region 11:** Few sig. changes, non-sig use increase: cig, flavor/MJ vape
- **Region 12:** Sig. Risk DECREASE: Cigarettes, non-sig use increase: flavor vape, smokeless
- **Region 13:** “Good” Sig. most risk, non-sig use increase: MJ vape



State-level Estimation & Model Sensitivity

- Overall
 - Same method as Regional
 - 2021 to 2024 APNA data
 - Rates modeled by log-binomial regression
 - Including all results from each year
- Model Sensitivity
 - Adjustment by demographic factors
 - Sample inclusion: all results vs. results from counties participating in all 4 years

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

AR State Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	▼	▼	▼	▼	-2.6
Cigarette	▼	▼	▼	▼	-0.7
Marijuana	=	▼	▼	▼	-1.8
RX drug	=	=	▼	▼	-0.7
Smokeless tobacco	▼	=	=	▼	-0.3
Vaping(flavor)	▼	▼	=	▼	-1.1
Vaping(marijuana)	▲	▼	▼	▼	-1.1
Vaping(nicotine)	▼	▼	▼	▼	-3.4
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	▲	▲	▲	5.8
Alcohol(weekend)	=	▲	▲	▲	3.7
Cigarettes	▼	=	▲	=	-0.1
E-cigarettes	▲	▲	▲	▲	5.6
Marijuana	=	▲	▲	▲	5.7
RX drug	▼	=	▲	=	0.4
Vaping(occasionally)	=	▲	▲	▲	5.8
Vaping(regularly)	=	▲	▲	▲	3.4

- AR State
- Same method as regions
- Most notable results:
- Largest use changes: Vaping nicotine dropped 3.4%
- Largest risk perception changes: Daily alcohol, e-cigs, marijuana, and occ. Vaping all increased by over 5.5%

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

AR State Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	▼	▼	▼	▼	-1.8 -2.6
Cigarette	▼	▼	▼	▼	-0.6 -0.7
Marijuana	=	▼	▼	▼	-1.3 -1.8
RX drug	=	=	▼	▼	-0.6 -0.7
Smokeless tobacco	▼	=	=	▼	-0.3 -0.3
Vaping(flavor)	▼	▼	=	▼	-1.1 -1.1
Vaping(marijuana)	▲	▼	▼	▼	-1.1 -1.1
Vaping(nicotine)	▼	▼	▼	▼	-3.4 -3.4
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	▲	▲	▲	5.4 5.8
Alcohol(weekend)	=	▲	▲	▲	3.6 3.7
Cigarettes	▼	=	▲	=	0.2 -0.1
E-cigarettes	▲	▲	▲	▲	5.2 5.6
Marijuana	=	▲	▲	▲	4.2 5.7
RX drug	▼	=	▲	▲	0.6 0.4
Vaping(occasionally)	=	▲	▲	▲	5.1 5.8
Vaping(regularly)	▲	▲	▲	▲	3.2 3.4

- AR state
- Model adjusted by grade, sex, race
- **Changes in results:**
- 2022: vaping reg becomes up green arrow
- 2024/1 RX drugs becomes up green arrow
- Slightly different point estimates of rates/changes in rates
- Cigarette risk: non-sig, but +/- change

- “=” indicates no significant change
- An up or down arrow indicates a statistically significant change in that direction
- Green arrows indicate a decrease in use or increase in risk perception
- Red arrows indicate an increase in use or decrease in risk perception.

AR State Trends	2022	2023	2024	2024 vs. 2021	
	vs. 2021	vs. 2022	vs. 2023	Directional change	Rate change
Youth self-reported past 30 days use					
Alcohol	▼	▼	▼	▼	-2.5 -2.6
Cigarette	▼	=	▼	▼	-0.7 -0.7
Marijuana	=	▼	▼	▼	-1.8 -1.8
RX drug	=	=	▼	▼	-0.7 -0.7
Smokeless tobacco	▼	=	=	▼	-0.3 -0.3
Vaping(flavor)	▼	▼	=	▼	-0.9 -1.1
Vaping(marijuana)	▲	▼	▼	▼	-1.2 -1.1
Vaping(nicotine)	▼	▼	▼	▼	-3.2 -3.4
Youth perceiving "moderate" or "great" risk					
Alcohol(daily)	=	▲	▲	▲	5.5 5.8
Alcohol(weekend)	▼	▲	▲	▲	3.4 3.7
Cigarettes	▼	=	▲	=	-0.3 -0.1
E-cigarettes	=	▲	▲	▲	5.3 5.6
Marijuana	=	▲	▲	▲	5.6 5.7
RX drug	▼	=	▲	=	0.2 0.4
Vaping(occasionally)	=	▲	▲	▲	5.5 5.8
Vaping(regularly)	=	▲	▲	▲	3.1 3.4

- AR state
- Including only counties participating all 4 years
- **Changes in results:**
- Significance lost for cigarette use '23 vs. '22 & E-cig risk '22 vs. 21
- Significant risk decrease weekend Alc. '22 vs. 21
- Slight numeric changes, though no +/- changes
- Likely to show more changes at Regional level, for regions with non-participating counties

Discussion

- State-level results fairly robust to adjustment/sample inclusion
- Future steps:
 - Demographic adjustment with Demographic X Time interaction effects
 - ‘Keep eye on’ sensitivity at Regional level
- Questions?
- Comments
- Feedback
- What outcomes, analysis, reporting would be helpful to regional prevention providers and others?