



# Arkansas Statewide Epidemiological Outcomes Workgroup

**Semi-Annual Meeting**  
**03/26/2024**

Supported by: SAMHSA Substance Abuse  
Block Grant (T. Fisher, PI)



# Today's Agenda

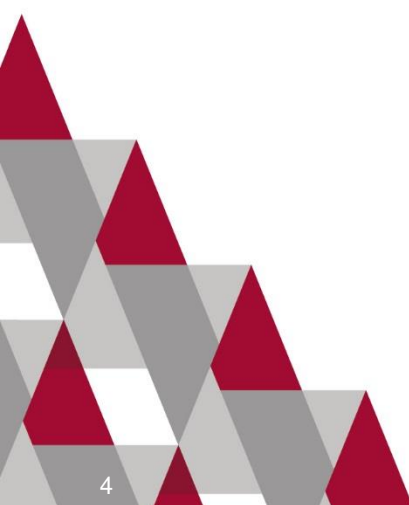
- Welcome/Introductions/SEOW Mission (A. Oliveto)
- Updates on National Substance Use Trends (A. Oliveto)
- Trends in statewide pediatric cannabinoid edible exposures (Ari Filip, MD)
- Infectious Diseases in Pregnancy: A Public Health Success or Failure in Arkansas? (Mallory Jayroe, MS, CHES)
- Evaluating Evidence Base for Prevention Programs (M. Bollinger)
- Updates on DHS Division Organization (Joycelyn Pettus)
- Alcohol Use and Related Outcomes in Dry vs Wet AR Counties (A. Oliveto)
- If time allows: *Updates on Nonmedical Prescription Stimulant vs Methamphetamine Use Risk Factors (A. Oliveto)*
- Drug Overdose Death Review from a Forensic Pathologist Perspective and an Arkansas Update (Theodore Brown, MD)
- Action Plan/Wrap-Up/Next Meeting

# SEOW Mission

SEOW's mission is to guide successful prevention efforts in the state of Arkansas by:

- Analyzing, monitoring and sharing data trends in substance use and other environmental, behavioral, and health-related factors.
- Informing data-driven policy and practice decision-making regarding prevention priorities at local and state levels.
- Disseminating evidence-based education and prevention materials to the larger public.

# Updates on National and Local Trends



# Reported drug use among adolescents continued to hold below pre-pandemic levels in 2023

*Compared to levels reported in 2022, MTF data in 2023 show:*

- **Alcohol use** in past year stable for eighth (15.1%) and 10<sup>th</sup> graders (30.6%) and declined for 12<sup>th</sup> graders (45.7% versus 51.9% in 2022).
- **Nicotine vaping** in past year remained stable for eighth graders (11.4%) while declining from 20.5% to 17.6% in 10<sup>th</sup> grade and from 27.3% to 23.2% in 12<sup>th</sup> grade.
- **Cannabis** use in past year remained stable for all three grades surveyed, (8.3% of eighth graders, 17.8% of 10<sup>th</sup> graders, and 29.0% of 12<sup>th</sup> graders).
- **Vaping Cannabis** in the past year remained stable for all grades (6.5% of eighth graders, 13.1% of 10<sup>th</sup> graders, and 19.6% of 12<sup>th</sup> graders).

<https://nida.nih.gov/news-events/news-releases/2023/12/reported-drug-use-among-adolescents-continued-to-hold-below-pre-pandemic-levels-in-2023>

# Reported drug use among adolescents continued to hold below pre-pandemic levels in 2023

*Compared to levels reported in 2022, MTF data in 2023 show:*

- **Delta-9-THC** use in the past year was reported by 11.4% of 12<sup>th</sup> graders.
- **Any illicit drug use other than marijuana** in the past year remained stable (4.6% of eighth graders, 5.1% of 10<sup>th</sup> graders, and 7.4% of 12<sup>th</sup> graders).
- **Use of narcotics other than heroin** decreased among 12<sup>th</sup> graders, with 1.0% reporting use within the past year (matching the all-time low reported in 2021).
- **Abstaining** from marijuana, alcohol, and nicotine use over the past month increased for 12<sup>th</sup> graders (62.6%) and remained stable for eighth (87%) and 10<sup>th</sup> graders (76.9%).

<https://nida.nih.gov/news-events/news-releases/2023/12/reported-drug-use-among-adolescents-continued-to-hold-below-pre-pandemic-levels-in-2023>

# 2022 APNA/MTF: Arkansas Versus US Past 30-Day Substance Use

Grade Level	Alcohol	Cigarettes	Smokeless Tob	Vape Flavoring	Vape Nictine	Vape MJ	Any Vaping	MJ
8th	-0.4	0.6	0.2	0.3	-0.1	-0.8	-0.1	-1.3
10th	-2.2	0.6	-0.2	-1.5	-2	-2.4	-2.1	-3.3
12th	-11.2	-0.9	0.2	-2.4	-3.7	-3.7	-5	-7.8

Grade Level	LSD/Hallucinogens	Cocaine	Inhalants	Methamphetamine	Heroin/Opiates	MDMA/Ecstasy	Steroids
8th	0.1	-0.1	0	0	-0.1	0	0
10th	0.1	-0.1	-0.1	0	-0.1	-0.1	0.2
12th	0	-0.5	0	-0.2	-0.1	-0.6	-1

# Psilocybin Poison Control Calls Spike in Teens, Young Adults

- During the entire 10-year study period, 4055 psilocybin-involved exposures were reported in the age groups studied
  - 66% were single-substance exposures
  - Close to three quarters received medical attention
- Psilocybin's most common effects were:
  - Hallucinations or delusions (37% of calls)
  - Agitation (28%)
  - Tachycardia (20%)
  - Confusion (16%)

Christopher Holstege, MD, director of UVA Health's Blue Ridge Poison Center and chief of the Division of Medical Toxicology at the UVA School of Medicine was the senior and corresponding author of the study. It was [published online](#) on February 26 in the *Journal of Adolescent Health*



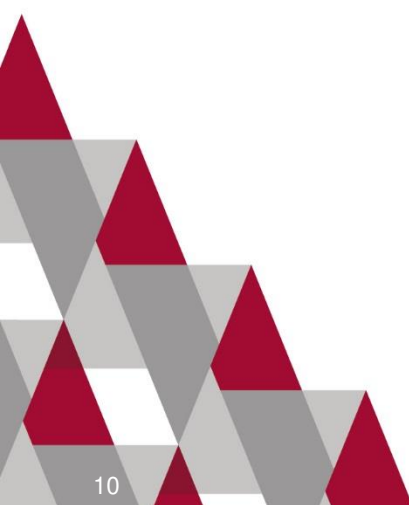
# Psilocybin Poison Control Calls Spike in Teens, Young Adults

- The number of psilocybin-related calls to poison control centers for youth were largely unchanged from 2013 to 2018 but:
  - **More than tripled** among adolescents (aged 13-19 years) from 2019 and 2022
  - **More than doubled** among young adults (aged 20-25 years) between 2018 and 2022 ( $P < .0001$ )

Christopher Holstege, MD, director of UVA Health's Blue Ridge Poison Center and chief of the Division of Medical Toxicology at the UVA School of Medicine was the senior and corresponding author of the study. It was [published online](#) on February 26 in the *Journal of Adolescent Health*

# Trends in Statewide Pediatric Cannabinoid Edible Exposures

**Ari Filip, MD**



# Alcohol Use and Related Outcomes in Dry vs Wet AR Counties

## A. Oliveto

# Association of Dry versus Wet County Residence with Alcohol Use and Related Outcomes

## **Are Alcohol Related Social Problems More Likely To Occur in Wet Counties?** (Fullington, Price, Roebuck; 1985)

- Determined whether the 32 counties in Arkansas that presently allowed the sale of alcoholic beverages suffered from an increase in alcohol-related social problems
- Examined violent crimes, property crimes, offenses against family and children, and arrests for driving under the influence
- Used 1980 Data
- **43 Dry Counties** versus **32 Wet Counties** (two removed due to many dry locales)

# The Number of Social Problems Per Capita in the Wet and Dry Counties of Arkansas

		Violent Crimes	Property Crimes	Driving While Intoxicated	Offenses Against Family
<u>Dry Counties</u>					
	Mean	.9	14.9	7.2	
	Stand. Dev	.1	8.0	4.0	0
<u>Wet Counties</u>					
	Mean	2.9	29.9	11.2	
	Stand.Dev	.2	16.0	8.0	.1
Student's t		5.33	5.22	2.79	1.56
	1 tail				
Prob. (less than)		.01	.01	.01	.06

+all figures reported are per 1000 county residents

Compared with dry counties, Wet counties had:

- 3 times ↑ level of violent crimes per capita
- 2 times ↑ number of property crimes
- 1.5 times ↑ DUI arrests
- 2 times ↑ number of reported cases of child abuse per capita



From: (Fullington, Price, Roebuck; 1985)

# Partial Correlation Coefficients Between Wet/Dry Dummy Variable and Each Social Problem

	Zero Order Correlation	6th Order Correlation
Violent Crimes	.53 signif. <.01	.33 signif. <.05
Property Crimes	.53 signif. <.01	.43 signif. <.01
Offenses Against Family & Children	.18 signif. <.06	.09 signif. >.10
Driving While Intoxicated	.31 signif. <.01	.30 signif. <.05

All but offenses against family/children were significantly correlated with county status

From: (Fullington, Price, Roebuck; 1985)

# Dry versus Wet County Alcohol Use, Risk Factors, and Related Behaviors/Outcomes

**31 DRY Counties:** Ashley, Bradley, Clay, Cleburne, Craighead, Crawford, Faulkner, Fulton, Grant, Hempstead, Hot Spring, Howard, Independence, Izard, Johnson, Lafayette, Lawrence, Lincoln, Lonoke, Montgomery, Nevada, Newton, Perry, Pike, Polk, Pope, Scott, Searcy, Stone, White, Yell

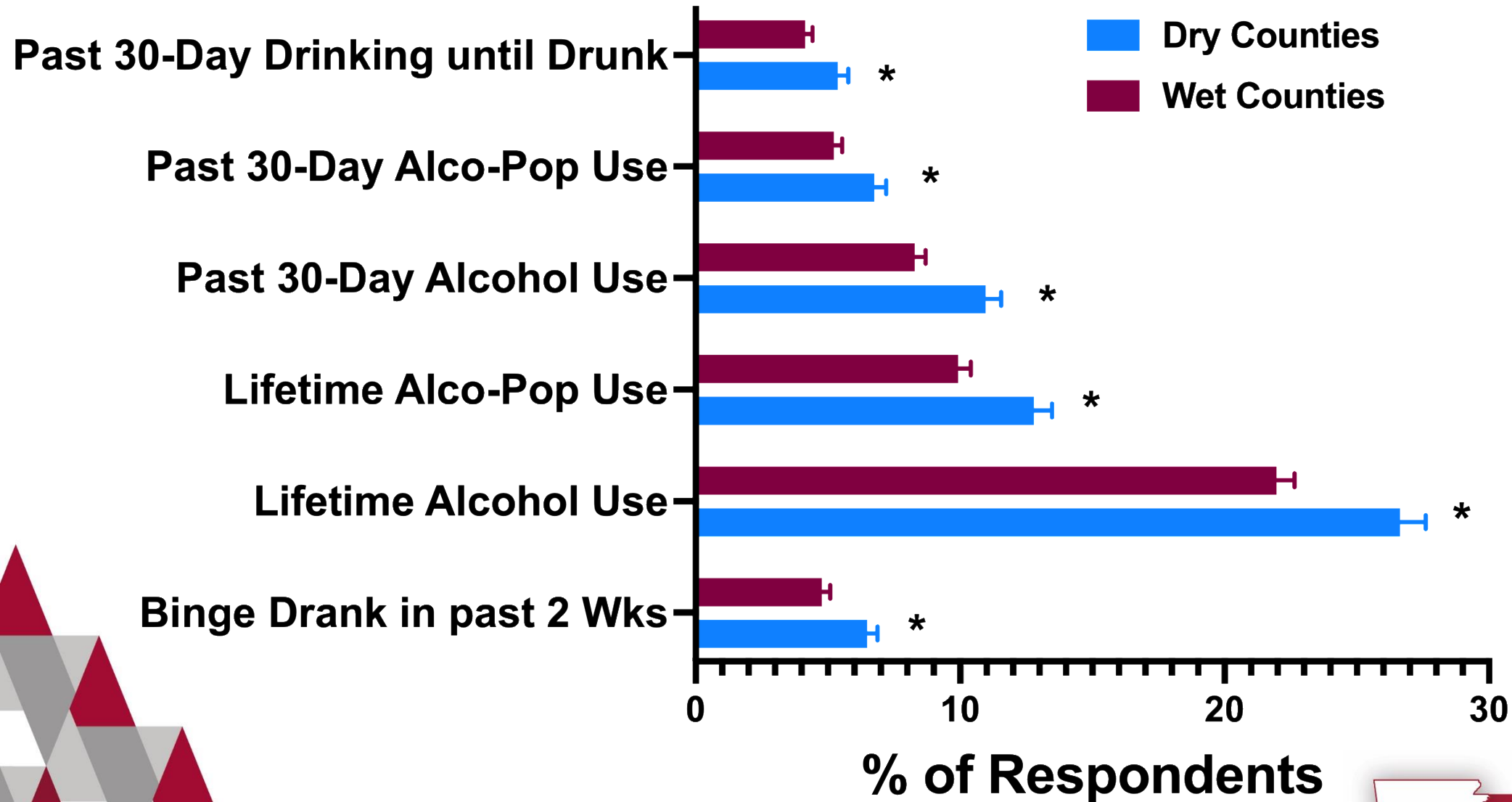
**44 WET Counties:** Arkansas, Baxter, Benton, Boone, Calhoun, Carroll, Chicot, Clark, Cleveland, Columbia, Conway, Crittenden, Cross, Dallas, Desha, Drew, Franklin, Garland, Greene, Jackson, Jefferson, Lee, Little River, Logan, Madison, Marion, Miller, Mississippi, Monroe, Ouachita, Phillips, Poinsett, Prairie, Pulaski, Randolph, Saline, Sebastian, Sevier, Sharp, St. Francis, Union, Van Buren, Washington, Woodruff

# SEOW: Dry versus Wet County Alcohol Use, Risk Factors, and Related Behaviors/Outcomes

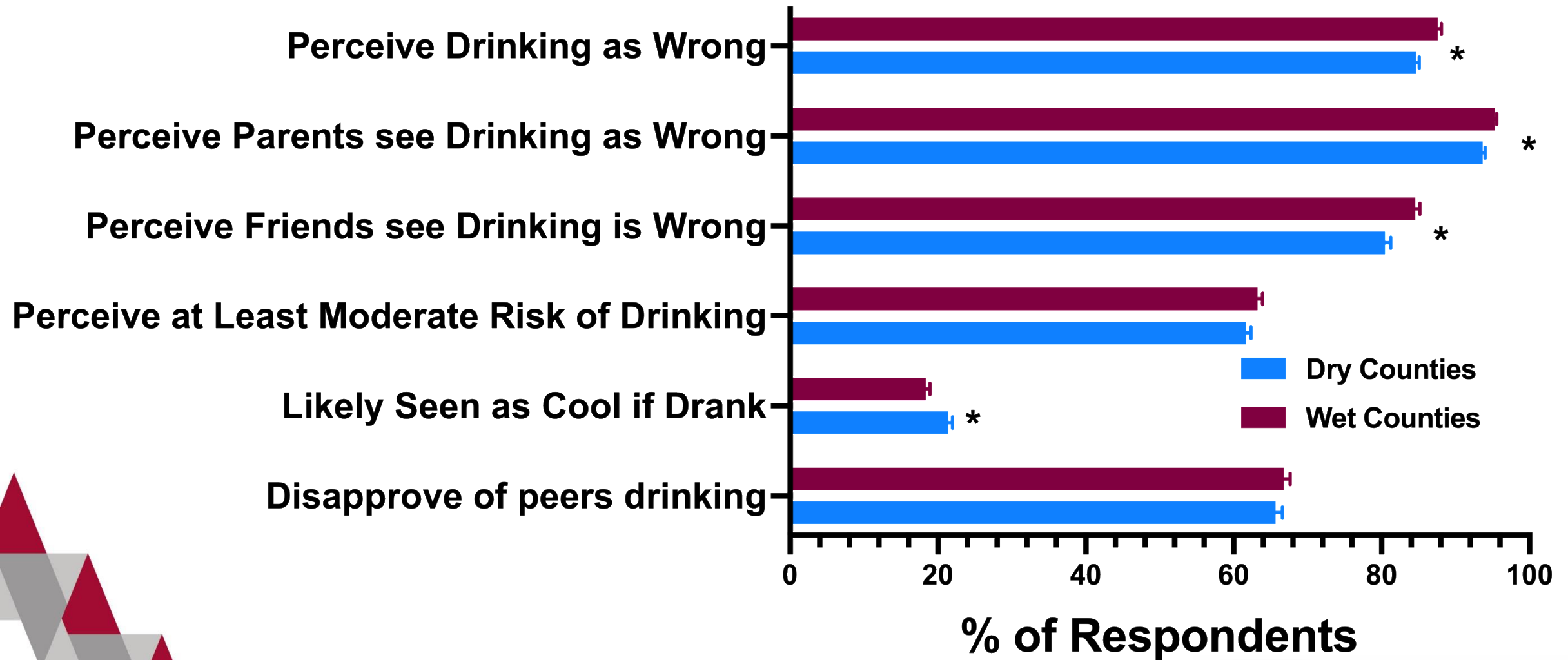
- Chose 2021 (post-COVID) data
  - APNA (missing data from 5 counties)
  - NHTSA FARS
  - Arkansas ADE
  - County Business Patterns data at the Census Bureau
  - American Community Survey
- Used Ranked sum tests or t tests as appropriate



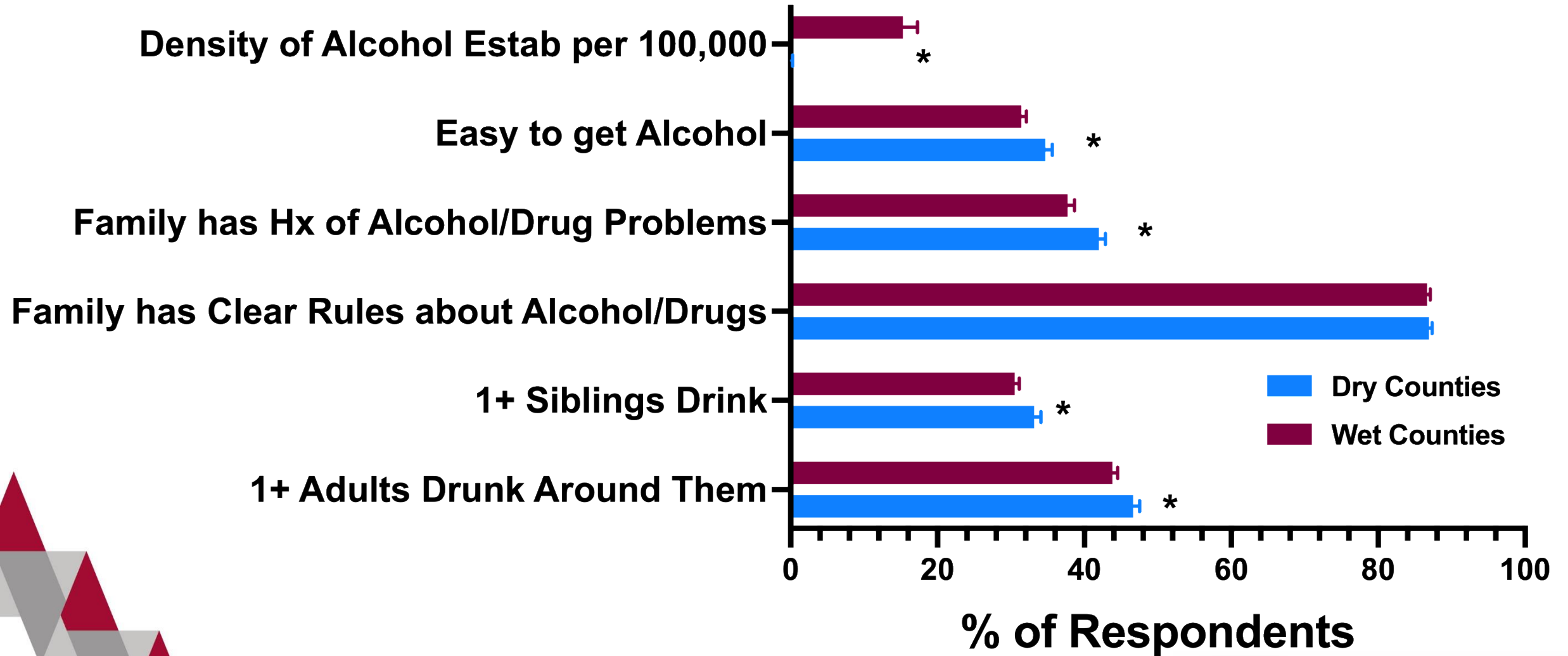
# 2021 APNA: Alcohol Use Variables



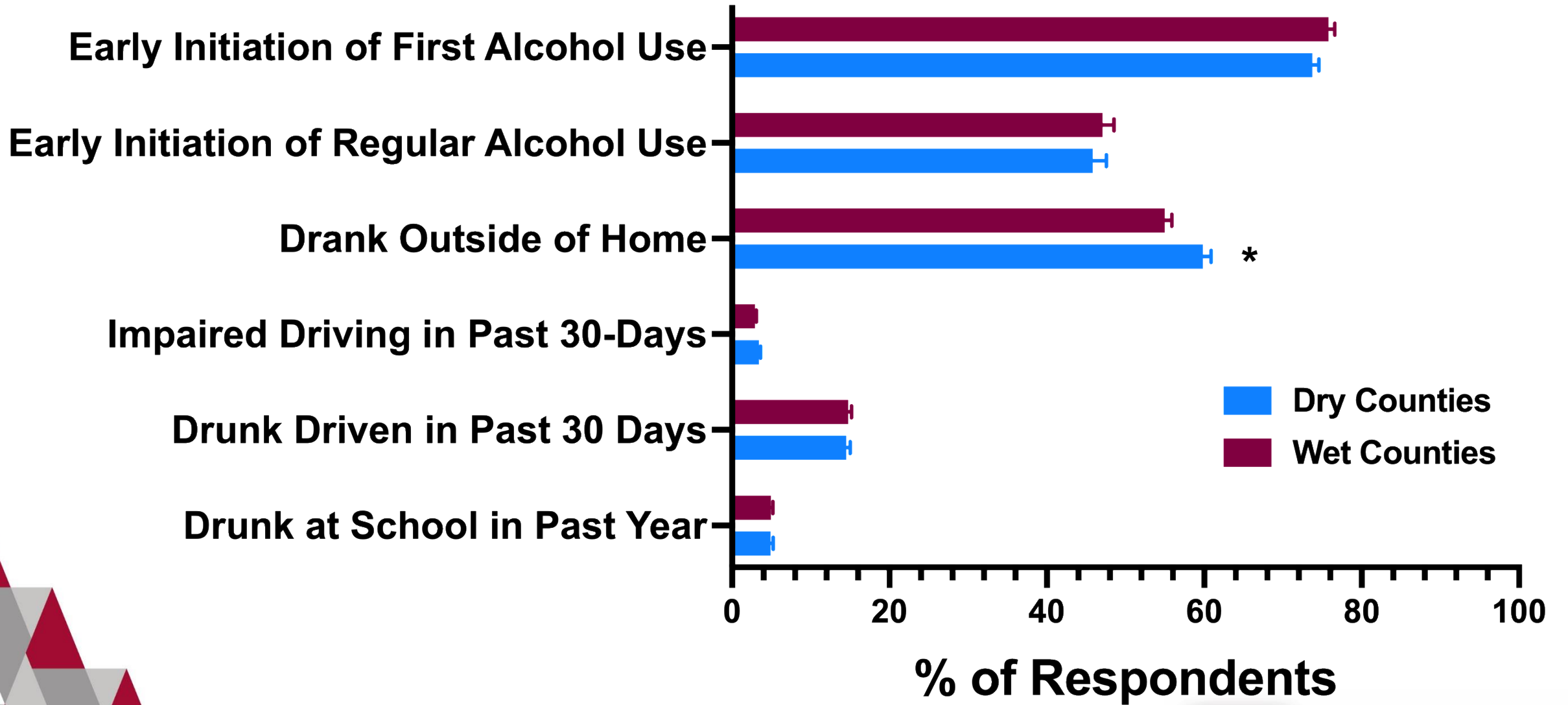
# 2021 APNA: Risk/Protective Factors



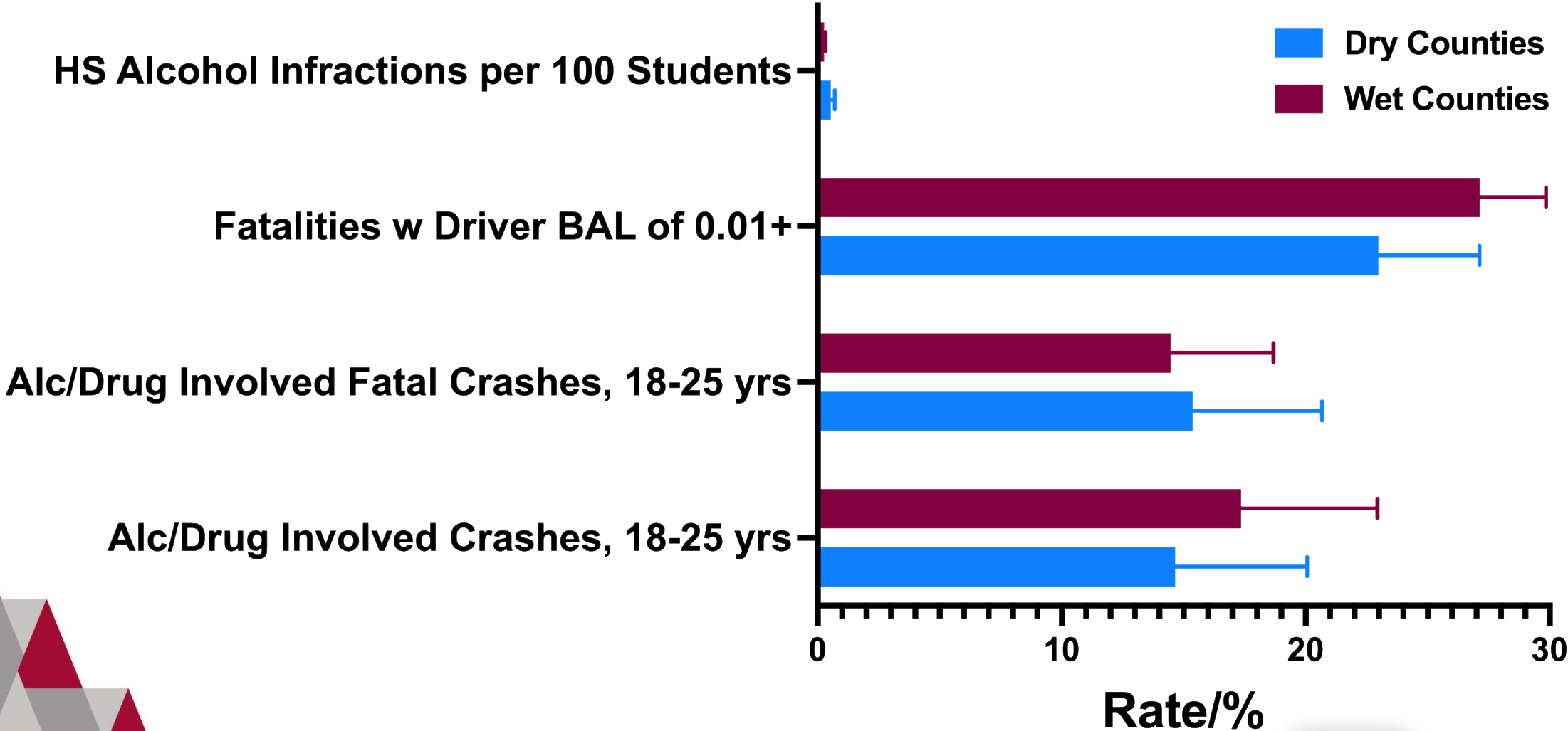
# 2021 APNA: Risk/Protective Factors



# 2021 APNA: Alcohol-Related Behaviors



# Alcohol-Related Outcomes

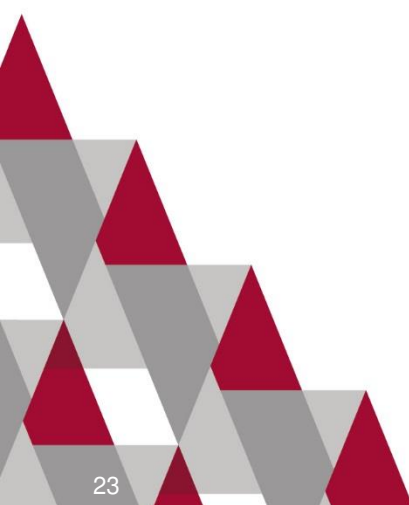


# Summary

- Students in dry counties appear to have greater prevalence of alcohol use, problematic alcohol use, and certain risk factors for alcohol use.
- Students in dry counties did not differ from those in wet counties on most alcohol-related behaviors and on alcohol-related consequences.
- Adults/young adults in dry counties did not differ from those in wet counties on certain alcohol-related outcomes

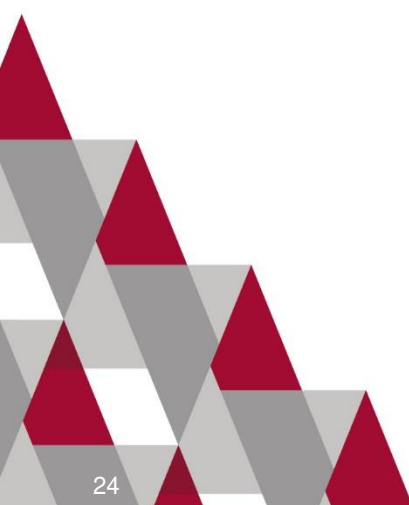
In 2021, being a dry county does not appear to be a protective factor against adolescent alcohol use, alcohol-related behaviors or alcohol-related outcomes.

# Discussion



# **Prescription Stimulant Misuse and Illicit Methamphetamine Use, Oh My!**

## **Prevalence and Risk/Protective Factors**





Adderall

(amphetamine/dextroamphetamine)



Dexedrine

(dextroamphetamine)



Drugs.com

## Common Prescription Stimulant Medications

Concerta

(methylphenidate)



Desoxyn

(methamphetamine)



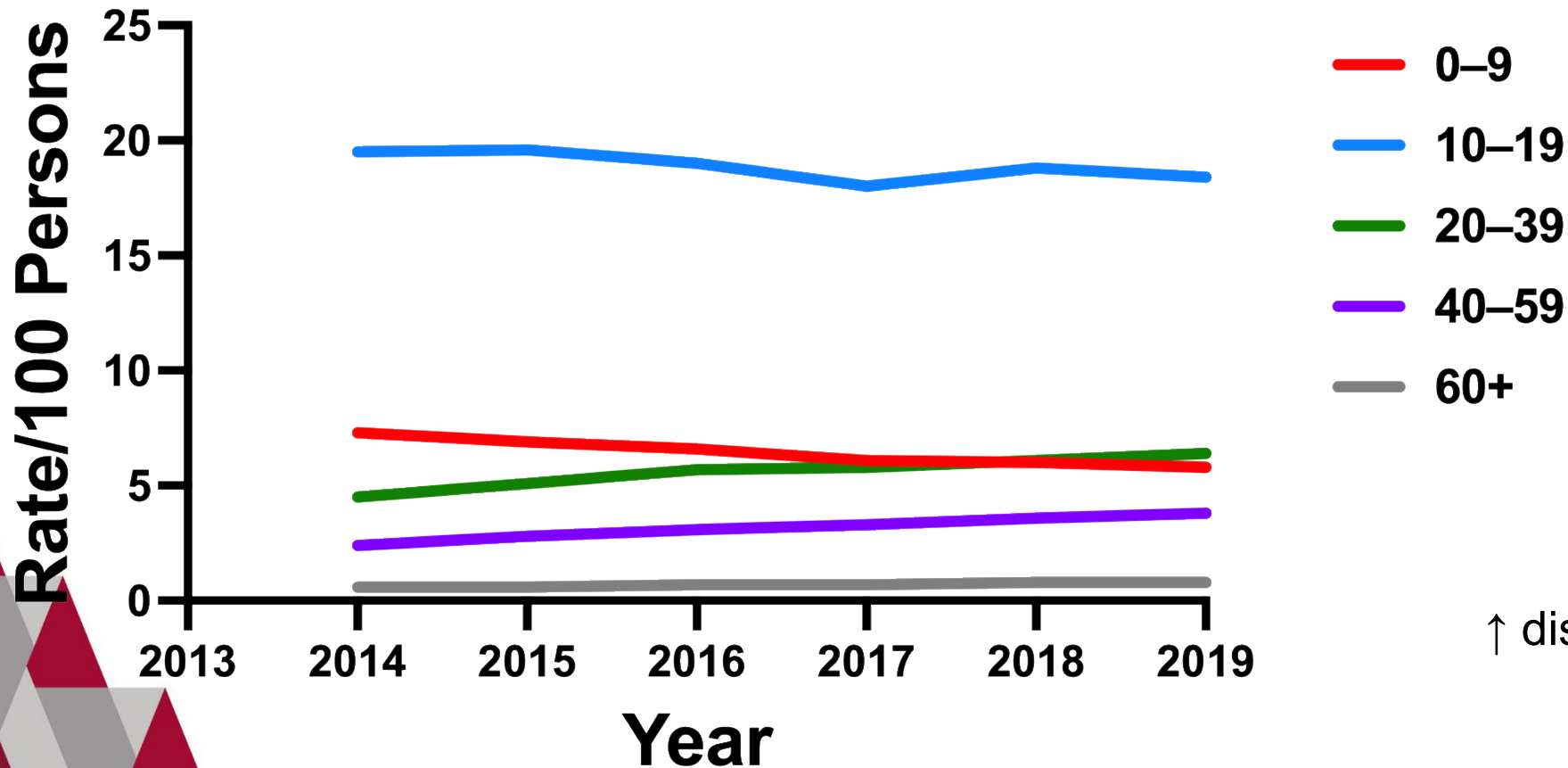
Ritalin

(methylphenidate)



# Pre-COVID Pandemic

## Annual Controlled Substance Stimulants Dispensed by Age (Years)

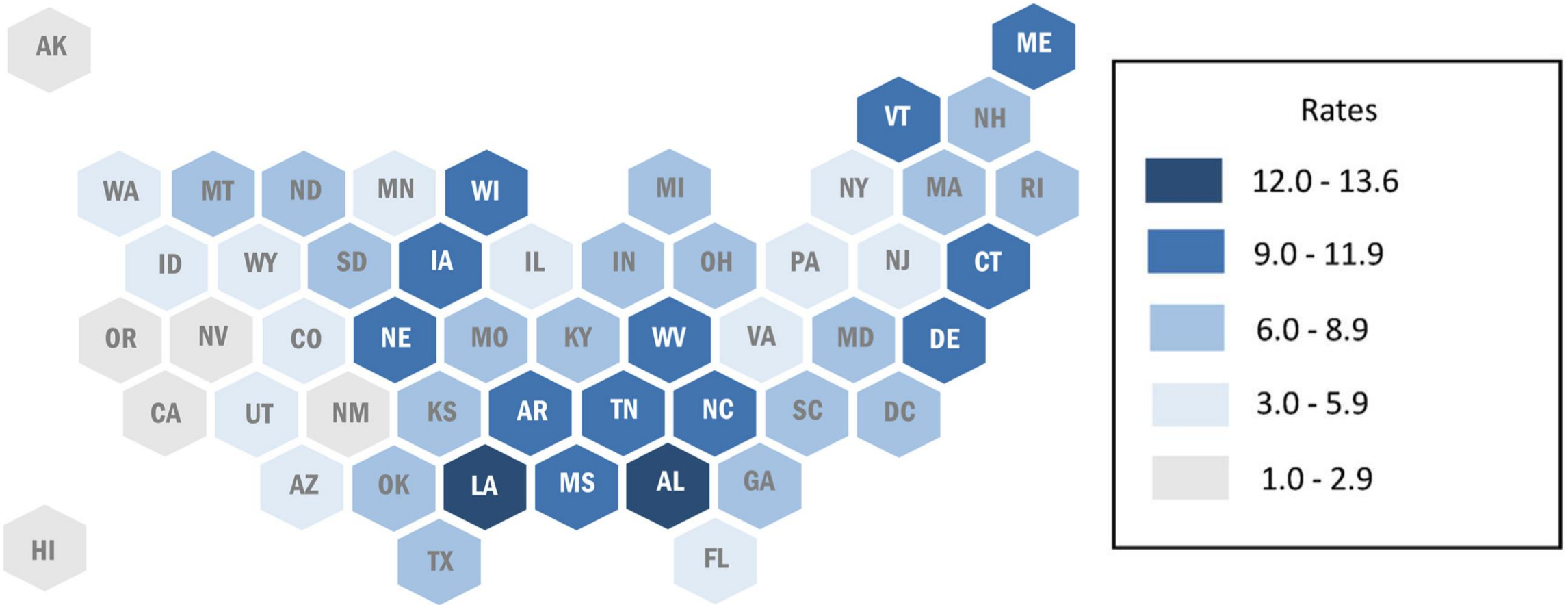


Age Range (Yrs)	Change from 2014 to 2019 (%)
All	+1.5
0-9	-4.7
10-19	-1.4
20-39	+6.7
40-59	+9.7
60+	+6.9

↑ dispensing rate among females

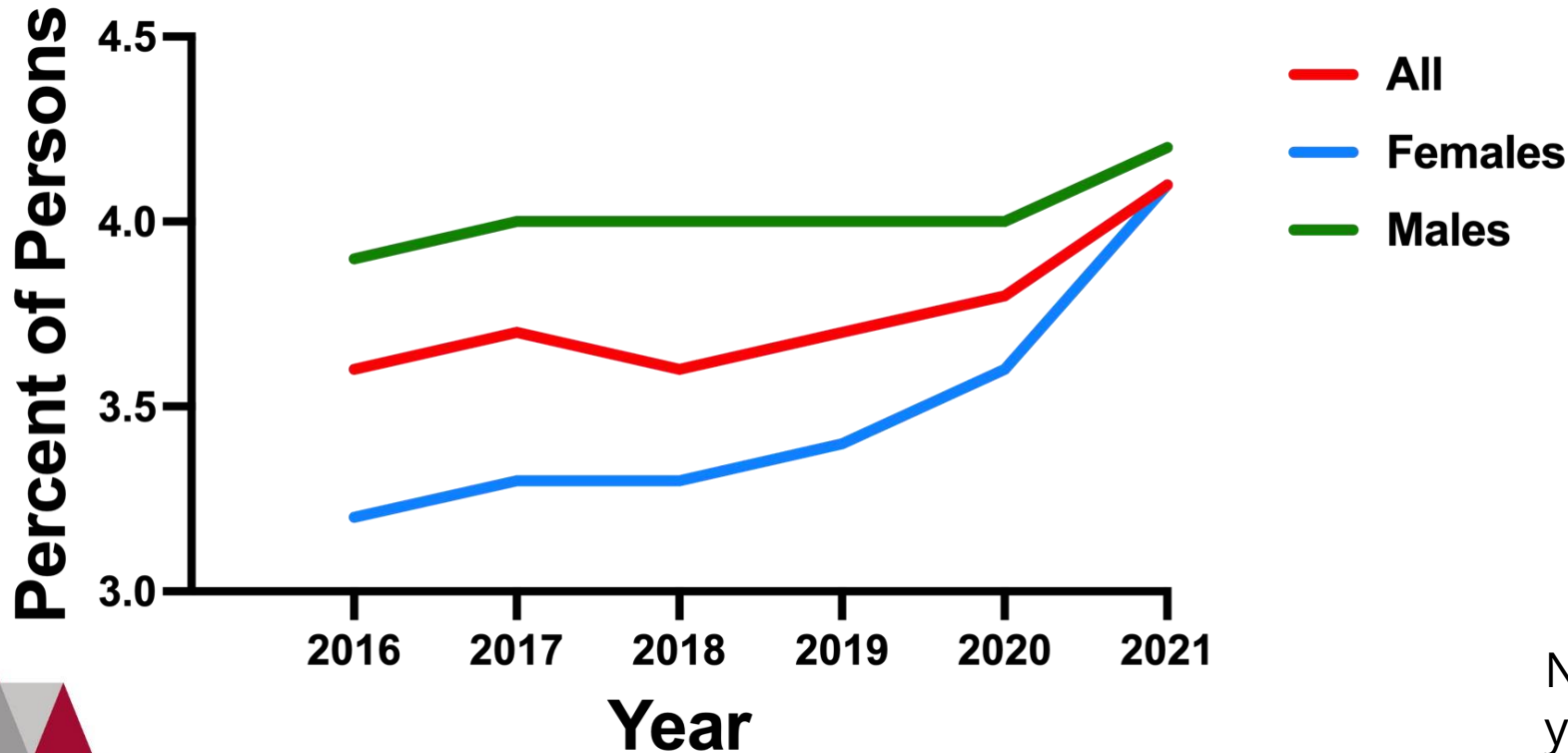


# Stimulant dispensing rates per 100 persons by U.S. state, 2019



# Stimulant Dispensing Rates Pre, During, and Post COVID

## 1+ Stimulant Prescription Fills (aged 5-64 yrs)



Cohort (5-64 yrs)	Avg Annual % Change 2016-2020	Annual % Change 2020-2021
Both Sexes	+1.4	+7.9
Females	+3.0	+13.9
Males	+0.6	+5.0

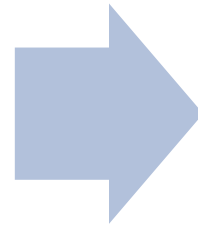
Notable increases among adolescent and young adult females and adult males

# Past-Year Prescription Stimulant Use/Misuse Stats

**16 Million** (2019)

**5 Million**

Prescription  
Stimulant Use



Nonmedical  
Prescription  
Stimulant Use  
(Misuse/Abuse)

Compton WM, Han B, Blanco C, Johnson K, Jones CM. Prevalence and Correlates of Prescription Stimulant Use, Misuse, Use Disorders, and Motivations for Misuse Among Adults in the United States. Am J Psychiatry. 2018 Aug 1;175(8):741-755.

## PRESCRIPTION STIMULANT MISUSE AND PREVENTION AMONG YOUTH AND YOUNG ADULTS

The misuse of prescription pain relievers, tranquilizers, sedatives, and stimulants among youth and young adults aged 12 to 25 is a major public health issue in the United States. The prevalence of prescription drug misuse is highest among young adults between the ages of 18 and 25; over 11 percent report the misuse of prescription drugs in the past year.<sup>1</sup> Similarly, over 4 percent of youth between the ages of 12 and 17 report prescription drug misuse in the past year.<sup>1</sup> Although the overall prevalence of prescription drug misuse among youth and young adults has declined in recent years,<sup>1</sup> its relatively high rate among young adults, in particular, is concerning. In this age category, the rates of prescription stimulant misuse are higher than the rates of misuse for other categories of prescription medications.<sup>1</sup>

In this advisory, prescription stimulant misuse includes:

- Using medication without a prescription of one's own, even if with therapeutic intent;
- Using medication in greater amounts, more often, or longer than prescribed;
- Using medication in any way other than directed by a prescriber (e.g., non-medical use); or
- Using medication for recreational purposes or without therapeutic intent.

This advisory occasionally uses the phrase "non-medical use of prescription stimulants" when citing studies that use this terminology.

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Reviews evidence on prescription stimulant misuse among youth and young adults

- Establishes prescription stimulant misuse as a public health problem
- Identifies associated risk and protective factors
- Provides programs and action steps for stakeholders to prevent misuse

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November 2021

# Prescription Stimulant Misuse Among Youth and Young Adults

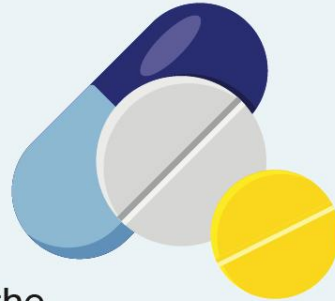
## Prescription Stimulant Use/Misuse Among Youth Ages 12 to 17

### In 2019...

**7.5%** of youth reported the use of prescription stimulants in the past year.

**1.7%** of youth reported the misuse of prescription stimulants in the past year.

**0.3%** of youth had a prescription stimulant use disorder in the past year.



- 23.4 percent of youth who used any prescription stimulants in the past year misused them.
- Amphetamine-type stimulants as a class were the most commonly reported stimulant used among 8th, 10th, and 12th graders.

## Prescription Stimulant Use/Misuse Among Young Adults Ages 18 to 25

### In 2019...

**12.8%** of young adults reported the use of prescription stimulants in the past year.

**5.8%** of young adults reported the misuse of prescription stimulants in the past year.

**0.6%** of young adults had a prescription stimulant use disorder in the past year.



- 45.2 percent of young adults who used any prescription stimulants in the past year misused them.
- Young adults who attend college are more likely to misuse prescription stimulants when compared to their non-college attending peers.

# “Overramping”: Physical Signs of Stimulant Overdose

- Nausea and/or vomiting
- Falling asleep/passing out (but still breathing)
- Chest pain or a tightening in the chest
- High temperature/sweating profusely, often with chills
- Fast heart rate, racing pulse
- Irregular breathing or shortness of breath
- Limb jerking or rigidity
- Feeling paralyzed while awake
- Severe headache
- Hypertension (elevated blood pressure)
- Teeth grinding
- Insomnia or decreased need for sleep
- Tremors

***Can lead to stroke, heart attack, or convulsions/seizures***

<https://harmreduction.org/issues/overdose-prevention/overview/stimulant-overramping-basics/recognizing-stimulant-overramping/>



# “Overramping”: Psychological Signs of Stimulant Overdose

- Extreme anxiety
- Panic
- Extreme paranoia
- Hallucinations
- Extreme agitation
- Increased aggressiveness
- Restlessness or irritability
- Hypervigilance (being super aware of your environment, sounds, people, etc.)
- Enhanced sensory awareness
- Suspiciousness

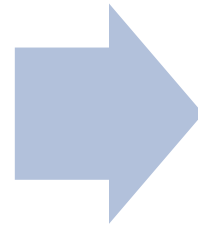
***Can lead to psychosis in those vulnerable***

<https://harmreduction.org/issues/overdose-prevention/overview/stimulant-overramping-basics/recognizing-stimulant-overramping/>

# Prescription Stimulant Misuse Consequences

**5 Million**

**Nonmedical  
Prescription  
Stimulant Use  
(Misuse/Abuse)**



**0.4 Million**

**Stimulant  
Use Disorder**

Compton WM, Han B, Blanco C, Johnson K, Jones CM. Prevalence and Correlates of Prescription Stimulant Use, Misuse, Use Disorders, and Motivations for Misuse Among Adults in the United States. Am J Psychiatry. 2018 Aug 1;175(8):741-755.

# Heightened Drug Overdose Risks Due to Counterfeit Pills

Which Adderall pill is fake?



DEA. 22 June, 2023. One Pill Can Kill Images. Retrieved from <https://www.dea.gov/onepill/images> on 2 February, 2024

# Characteristics Associated with Prescription Stimulant Misuse

Adolescents	Adults
White	White
Mental health tx utilization	Younger (18-25 years)
Marijuana use	Past-year nonmedical Rx use
Other illegal drug use	Private insurance
High family conflict	Alcohol or other (illegal) drug use
Sensation-seeking	Not Hispanic (young adults)
HS upperclassmen	Sensation seeking (young adults)
Easy source of meds	Psychological distress (young adults)
Sch performance pressure	In college/low GPA (young adults)
	Anti-social behaviors (young adults)
	Marijuana use (young adults)

Chen et al., 2014; Compton et al., 2018; Faraone et al., 2020; Gardner-Dykstra et al., 2012; Herman-Stahl, 2006, 2007

# Prescription Stimulant Misuse Protective Factors

Individual	Family & Relationships	Community & Peers	Societal & Cultural
<ul style="list-style-type: none"><li>• Commitment to education</li><li>• Four-year college degree</li><li>• Social coping skills</li></ul>	<ul style="list-style-type: none"><li>• Parental disapproval of prescription drug misuse</li><li>• Stronger parental bond</li><li>• Parental supervision</li><li>• Family unity</li></ul>	<ul style="list-style-type: none"><li>• Positive social activities</li><li>• Positive youth development/ afterschool activities</li></ul>	<ul style="list-style-type: none"><li>• Norms against substance use</li></ul>

# Motivations for Prescription Stimulant Misuse

Adolescents	Adults
Enhance performance	Enhance performance (young adults)
Enhance alertness	Curiosity (young adults)
↑ concentration	Stay awake to party (young adults)
Get “high”	Get “high” (young adults)
Experimentation	Increased energy (young adults)
	Enhancing effects of other drugs (y adults)
	Treat withdrawal sx (young adults)
	Weight loss
	Enhance alertness, work performance
	<b>Self-medicate untreated ADHD</b>

Boyd et al., 2007; Butler et al., 2021; Gardner-Dykstra et al., 2012

# Nonprogrammatic Strategies

- Reduce Diversion/Misuse
  - Change provider prescribing practices
    - Carefully consider use, type, and formulation of stimulant medication
    - Limit frequency of prescription refills between visits
    - Obtain signed agreements from patients and/or guardians
    - Educate about the proper use, administration, and storage of medication
    - Counsel about the consequences of misuse and diversion
    - Carefully monitor patients using PDMP
    - Regularly screen patients for SUDs
  - Monitor prescription pill counts/proper storage practices
  - Drug take-back initiatives/proper medication disposal

# Nonprogrammatic Strategies

- Overramping Prevention
  - Educate patients about these dangers when prescribing stimulants, including signs of overdose
  - Individuals prescribed stimulants should have regular PCP visits to monitor side effects and contraindications
    - PCP should regularly monitor cardiac function
  - Educate about the dangers of counterfeit pills!



# Youth/Young Adult Specific Prevention Interventions

- **Generation Rx:** Educates **youth** or **young adults** on importance of using medications (incl stimulants) safely and preventing misuse. (***Not yet evaluated***)
- **Expectancy Challenge:** Challenges **college students'** beliefs about prescription stimulants with the goal of reducing misuse. ***Significant lower expectations about cognitive enhancement of prescription stimulant use immediately after participating in the challenge compared to those who did not participate - although this effect was not long-lasting. Participants who more strongly believed prescription stimulant misuse would have negative effects were less likely to misuse prescription stimulants later.***

# Youth/Young Adult Specific Prevention Interventions

- **Prescription Stimulant Misuse Prevention Program at Miami University in Ohio.** Provides a 90-minute workshop for students who visit the campus medical center to be prescribed stimulants. (***Not yet evaluated***)
- **Prescription Stimulant Misuse Prevention Program at Syracuse University.** Peer-led program delivered during first-year orientation.
  - delivered by upper class students trained in motivational interviewing techniques and includes a web-based intervention delivered through social media platforms.
  - includes an academic skills component
  - ***RCT showed program associated with lower levels of prescription stimulant misuse and had a greater impact on reducing positive expectations of stimulant use***

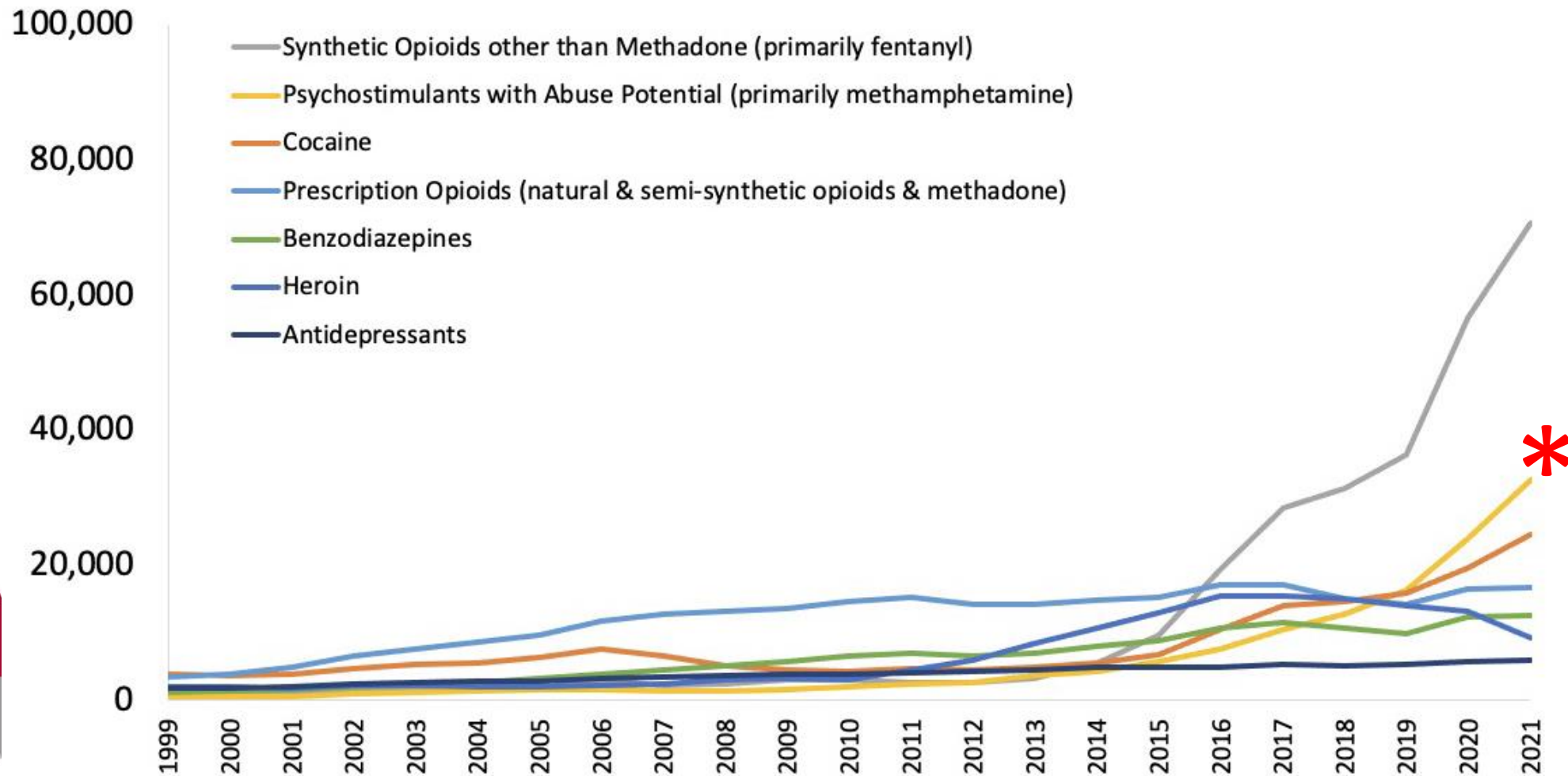
# Non-Specific Prevention Interventions: Youth

- **Home Environmental Strategy to Reduce Access to Harmful Legal Products** (geared toward parents of 5th to 7th graders)
- **Think Smart** (for 5th and 6th graders)
- **Strengthening Families Program** (for 6th and 7th grade students and their parents)
- **Communities That Care** (a coalition-based program for selecting evidence-based programs to address local needs and priorities)

# **Methamphetamine**

## **(Illicitly Manufactured)**

# U.S. Drug-Involved Overdose Deaths 1999-2021



Nearly 33,000 deaths involved stimulants in 2021 (37% ↑ from 2020)

> 30% of all overdose deaths involved psychostimulants in 2021

# Methamphetamine Use Consequences

**2.5 Million**

**Methamphetamine  
Use**



**1.6 Million**

**Methamphetamine  
Use Disorder**

<https://nida.nih.gov/publications/research-reports/methamphetamine/what-scope-methamphetamine-misuse-in-united-states>



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

## Drug and Alcohol Dependence Reports

journal homepage: [www.elsevier.com/locate/dadr](http://www.elsevier.com/locate/dadr)



### Psychostimulant drug co-ingestion in non-fatal opioid overdose<sup>☆</sup>

Siri Shastry<sup>a,\*</sup>, Joshua Shulman<sup>b</sup>, Kim Aldy<sup>c,d</sup>, Jeffrey Brent<sup>e</sup>, Paul Wax<sup>c,f</sup>, Alex F. Manini<sup>a,g</sup>,  
On behalf of the Toxicology Investigators Consortium Fentalog Study Group

- Of 378 enrollees with confirmed opioid overdose, 207 (54.8%) had psychostimulants present.
- OO patients were significantly older (mean 45.2 versus 40.6 years,  $p < 0.01$ ).
- OS patients had significantly higher total naloxone requirements (mean total dose 2.79 mg versus 2.12 mg,  $p = 0.009$ ).
- No significant differences in rates of intubation or cardiovascular events.

*Approximately half of ED patients with confirmed opioid exposures were positive for psychostimulants. Patients in the OS group required significantly higher naloxone doses, suggesting potential greater overdose severity.*

- Secondary analysis of a prospective consecutive cohort of ED patients age 18+ with opioid overdose at 9 hospital sites from September 21, 2020 to August 17, 2021.
- Patients divided into opioid-only (OO) and opioid + psychostimulants (OS) groups.

# Arkansas Drug-Involved Deaths Stats

Year	Total (#)	Opioid-Involved (#)	Meth-Involved (#)	Meth-Involved (%)
2021	556	392	244	43.9
2022	528	358	231	43.8

**92 (17.4%) of AR deaths in 2022 involved methamphetamine and illicitly-manufactured fentanyl**

<https://www.cdc.gov/drugoverdose/fatal/dashboard/accessible.html>



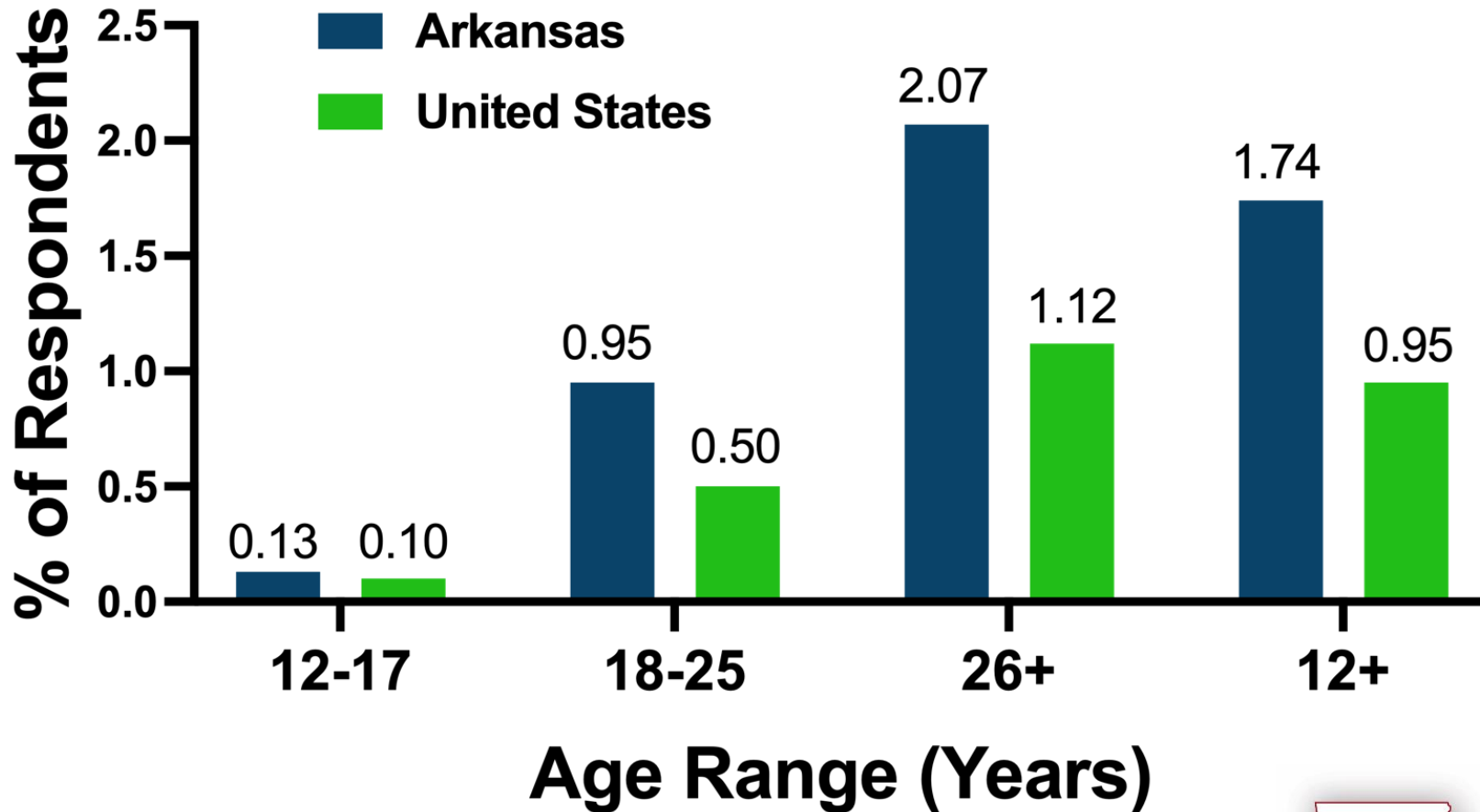


# National Survey on Drug Use and Health, 2021-2022

## Past-Year Methamphetamine Use

*AR ranked 3<sup>rd</sup> highest in U.S. Among Adults (18+yr)*

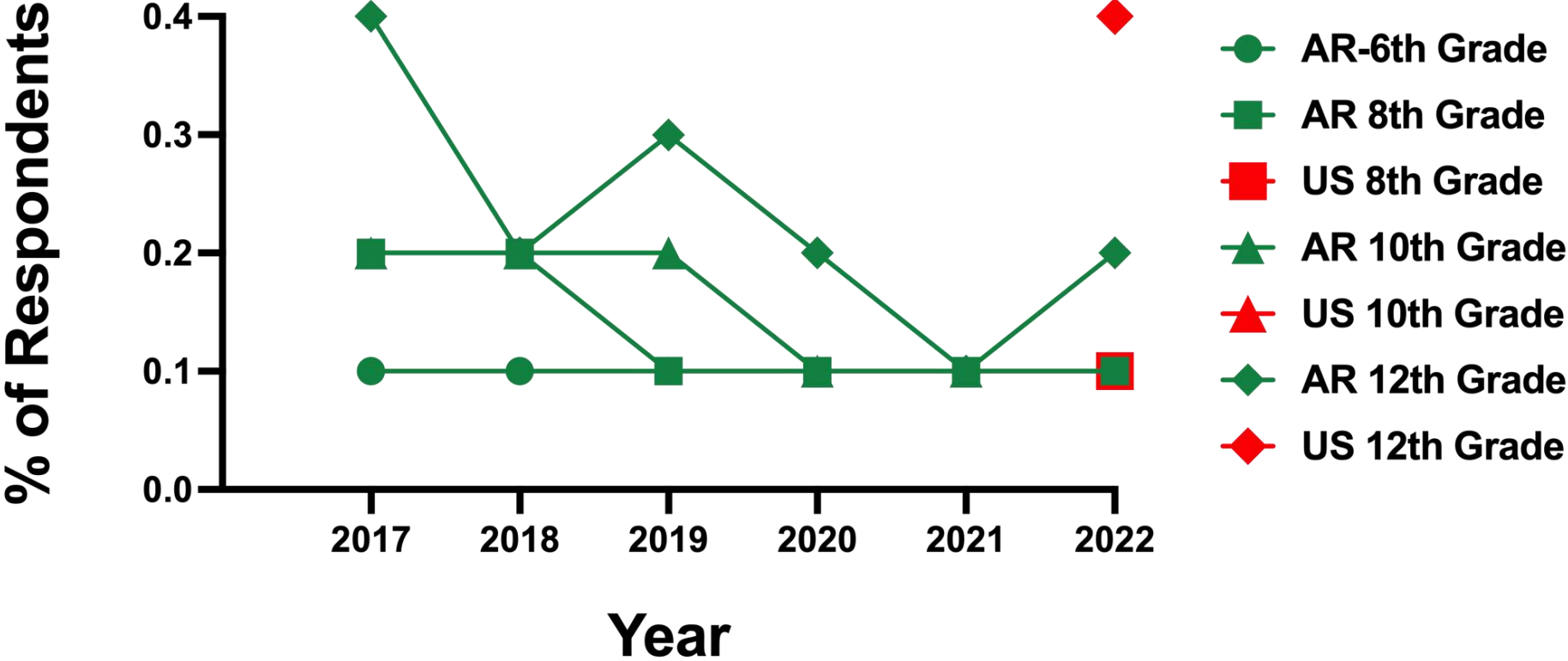
**NV #1  
WV #2**



*AR ranked 4<sup>th</sup> highest (4-way tie w/ CA, GA & NJ) Among Youth (12-17 yr)*

# AR Prevention Needs Assessment Survey, 2017-2022

## Past 30-Day Methamphetamine Use



<https://arkansas.pridesurveys.com/regions.php?year=2022>

# Chronic Methamphetamine Use Consequences

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- ***Violent behavior***
  - ***Anxiety***
  - ***Confusion***
  - ***Insomnia***
  - ***Paranoia***
  - ***Aggression***
  - ***Visual/auditory hallucinations***
  - ***Mood disturbances***
  - ***Delusions.***
  - ***Homicidal or suicidal thoughts***
  - ***Neurotoxicity and brain damage***
  - ***Extreme anorexia***
  - ***Memory loss***
  - ***Severe dental problems***

High doses may result in death from seizures, stroke, heart attack, or multiple organ problems caused by overheating

## Factors Associated with Meth Use

Adolescents	Adults
Female	Older ( >35 yrs)
Non-Hispanic White	Male
Low Religiosity Score	Non-Hispanic White/Hispanic (vs PSU)
Hispanic (vs PSU)	Uninsured/Unemployed
Selling drugs	No longer married
Marijuana/Alcohol/Cigarette use	<HS education
Other illegal drug use	Never enrolled in post-secondary ed
Binge drinking	Higher income family
History of heroin/opiate use	From rural areas (vs urban)
Prior Mental Health Tx Utilization	High psychological distress (young adults)
Family history of drug use/crime	Sensation seeking and life stress (young adults)
Risky sexual behavior	<b>Rx stimulant misuse</b> as youth (y adults)

Boden et al., 2023; Chen et al., 2014; Herman-Stahl et al., 2006, 2007; McCabe, 2023; Russell et al., 2008

# May 2022: ONDCP Releases Plan to Address Methamphetamine Health and Safety Concerns

Six Broad Areas:

- Supply Reduction and Trafficking
- Data and Research
- Prevention
- Harm Reduction
- Training and Education
- Treatment

## PLAN TO ADDRESS METHAMPHETAMINE SUPPLY, USE, AND CONSEQUENCES

THE WHITE HOUSE  
EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF NATIONAL DRUG CONTROL POLICY



<https://www.whitehouse.gov/wp-content/uploads/2022/05/ONDCP-Plan-to-Address-Methamphetamine-Supply-Use-and-Consequences.pdf>



# Reducing Supply/Early Intervention Strategies

- **COPS Anti-Methamphetamine Program:** Advances public safety by funding state law enforcement agencies to investigate illicit activities related to the manufacturing and distribution of methamphetamine.
- **Office of Justice Programs:** Testing initiatives that offer substance use disorder treatment and recovery support services as an alternative to people who may be incarcerated
- **Acute Stimulant Intoxication: Law Enforcement Interventions:** Programs for law enforcement specifically include police behavioral health collaborations, a subset of which includes crisis intervention teams and police de-escalation programs.

# Harm Reduction Strategies

- **Develop a pilot harm reduction program** for the at-risk group men who have sex with men (MSM) who use methamphetamine or other psychostimulants, but do not yet meet criteria for stimulant use disorder.
- **Develop an awareness effort** directed to people who use methamphetamine **about the dangers of fentanyl-contaminated supplies and potential overdoses** and the need to continually test drug supplies, not use alone, and always carry naloxone in case of opioid contamination.
- **Encourage widescale distribution of naloxone** to regions affected by illicit methamphetamine use, which may be contaminated with fentanyl.
- **Support research** to develop an antidote, reversal agent or better means of managing methamphetamine overdose or toxicity .
- **Build capacity in Syringe Service Programs (SSPs)** for drug testing of all illicit drugs, including methamphetamine, through distribution of fentanyl test strips.

# Prevention Strategies

- **Expand access to evidence-based primary prevention interventions** in schools within counties with high rates of persistent poverty, low education, low employment, and high methamphetamine use (including among Tribal Nations and Tribal officials).





# NIH Public Access

## Author Manuscript

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## Evidence-Based Interventions for Preventing Substance Use Disorders in Adolescents

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Griffin KW, Botvin GJ. Evidence-based interventions for preventing substance use disorders in adolescents. *Child Adolesc Psychiatr Clin N Am.* 2010 Jul;19(3):505-26. doi: 10.1016/j.chc.2010.03.005. PMID: 20682218; PMCID: PMC2916744.



# Evidence-Based Programs Examples

## Model School-Based Programs

- Life Skills Training: A universal program designed for all students in a particular setting
- Project Towards No Drug Abuse: A selective program designed for students attending alternative or continuation high schools

Griffin KW, Botvin GJ. Evidence-based interventions for preventing substance use disorders in adolescents. *Child Adolesc Psychiatr Clin N Am*. 2010 Jul;19(3):505-26. doi: 10.1016/j.chc.2010.03.005. PMID: 20682218; PMCID: PMC2916744.



# Evidence-Based Programs Examples

## Model Family-Based Prevention Programs

- Family Matters: A universal program designed for all families that include young adolescents
- Creating Lasting Family Connections: A selective program designed for youth and families in high-risk environments
- Brief Strategic Family Therapy: An indicated program designed for families in which children and adolescents exhibit early substance use, rebelliousness, and/or delinquency.

Griffin KW, Botvin GJ. Evidence-based interventions for preventing substance use disorders in adolescents. *Child Adolesc Psychiatr Clin N Am*. 2010 Jul;19(3):505-26. doi: 10.1016/j.chc.2010.03.005. PMID: 20682218; PMCID: PMC2916744.



# Summary

- Access to Rx stimulants likely easy in Arkansas
- Risk and protective factors differ for nonmedical Rx stimulant use and methamphetamine use and are also influenced by age
- No adult prevention programs appear to exist, only harm reduction and treatment programs
- Prevention efforts on adolescents and young adults and some programs are available with differing levels of evidence base

## Discussion

# Drug Overdose Death Review from a Forensic Pathologist Perspective and an Arkansas Update

**Theodore Brown, MD**

# Action Plan/Wrap-Up/Next Meeting





**We CAN make a difference!**

**Thank you!**

