


To engage community partners in the prevention of substance abuse in Anderson County through awareness, education, and policy change.

STEPHANIE A. STRUTNER, MPH, CPSII
EXECUTIVE DIRECTOR


Background

**THE NEED TO ELIMINATE
DRUGS FROM OUR SCHOOLS**



Alcohol and the Brain


Drinking Patterns	R	F	S	S	M	T	W
Zero	Green	Green	Green	Green	Green	Green	Green
Friday	Green	Less than 100%			Green	Green	Green
Friday & Saturday	Green	Less than 100%				Green	Green
Thursday & Saturday	Less than 100%				Green	Green	Green
Thursday Saturday Monday	Less than 100%						Green



Underage Alcohol Use and Negative Brain Development


- Smaller hippocampus (associated with memory and learning)
- Smaller prefrontal cortex (planning, goal direction)
- Decreased myelination (allows brain to function in a synchronous way)
- Lack of synapse pruning (attention problems and executive function failure seen behaviorally)
- Decrease in spatial memory tasks (less memory retrieval using more areas of the brain)

Dr. Howard Moss, US NIAAA Assistant Director of Clinical Research, *Does Underage Drinking Cause Brain Damage - Convergent Evidence from Imaging Research*



Alcohol and the Body

- Decreases anabolic capacity and increases catabolic activity
- Decreases muscle protein synthesis up to 63%
- Decreases levels of growth and sex hormones
 - Decreases testosterone 24-96 hours
 - Decreases HGH 70% (muscle metabolism)
- Increases blood glucose for 36 hours
- Lowers bone density
- Reduces ability to burn fat by 73%




Underage Marijuana Use and Negative Brain Development

- Marijuana users demonstrate more depressive symptoms than controls (linked to lower white matter volume)
- Neurodevelopmental white matter abnormalities disrupt the connections between areas involved in mood regulation
- Adolescent-onset users exhibit a loss of 8 IQ points, on average (ie: 50th percentile to the 29th percentile in terms of intelligence)

Drs. Medina, Nagel, Park, McQueeney, Tapert, Department of Psychiatry, University of California, San Diego, *Depressive symptoms in adolescents: associations with white matter volume and marijuana use*

Dr. Madeline Meier, National Institute of Drug Abuse, 2013



Marijuana and the Brain

3 weeks for brain to get back to "normal"

The graph shows a single sharp peak above the 'Normal' (N) line, followed by a gradual decline back to the baseline. The y-axis is labeled with 'E' (Excitatory) at the top and 'D' (Depressant) at the bottom. A red horizontal line marks the 'Normal' level.

ASAP

"Normal" Becomes Less Efficient

3 weeks for brain to get back to "normal"

The graph shows multiple peaks above the 'Normal' (N) line, with each subsequent peak being lower than the previous one. The baseline (N) appears to shift downwards over time, indicating that the brain's response to the same stimulus becomes less efficient. The y-axis is labeled with 'E' (Excitatory) at the top and 'D' (Depressant) at the bottom. A red horizontal line marks the 'Normal' level.

ASAP

Poisoning is now the leading cause of death from injuries in the U.S.

Figure 1. Motor vehicle traffic, poisoning, and drug poisoning death rates: United States, 1999-2008

The graph shows three lines representing death rates per 100,000 population from 1999 to 2008. The 'Motor vehicle traffic' line starts at approximately 22 and declines to about 15. The 'Poisoning' line starts at about 5 and rises to about 14. The 'Drug poisoning' line starts at about 2 and rises to about 13.5.

Source: National Center for Health Statistics, Centers for Disease Control and Prevention. National Vital Statistics Reports *Deaths: Final Data for the years 1999 to 2008*.

ASAP

Nearly 9 out of 10 poisoning deaths are caused by drugs: Opioid analgesics were involved in more than 40% of drug poisoning deaths in 2008

Figure 3. Number of drug poisoning deaths involving opioid analgesics and other drugs: United States, 1999-2008

The graph shows the number of drug poisoning deaths from 1999 to 2008. Three categories are shown: 'Any opioid analgesic' (green line), 'Specified drugs other than opioid analgesia' (blue line), and 'Only nonspecified drugs' (light blue line). All three categories show an overall upward trend, with 'Any opioid analgesic' showing the most significant increase.

Source: National Center for Health Statistics, Centers for Disease Control and Prevention. National Vital Statistics Reports *Deaths: Final Data for the years 1999 to 2008*.

ASAP

Neonatal Abstinence Syndrome

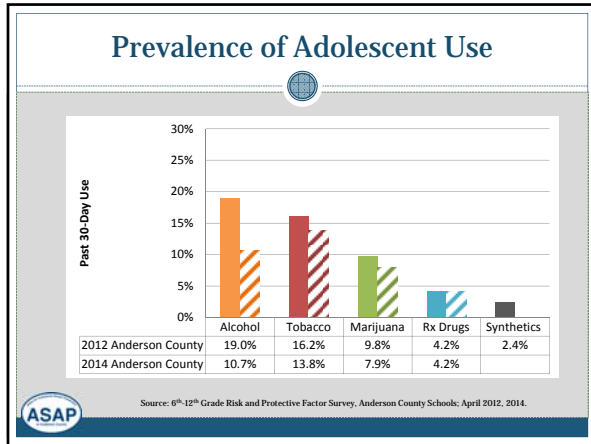
- Hospitals across the country reporting increases of approximately 300% since 2005
- 939 cases in TN in 2014
 - Average wean: 28 days (range 7:155)
 - 65% from eastern third of TN

ASAP

MRI Brain Volumes

The images are arranged in a 2x3 grid. The top row shows 'Full Term No Opiate Exposure' and the bottom row shows 'Full Term Opiate Exposure (Lortab use during Pregnancy)'. Each row contains three images: a coronal slice, an axial slice, and a color-coded volume map. The volume maps for the opiate-exposed group show significantly more red and blue areas, indicating increased brain volume.

ASAP

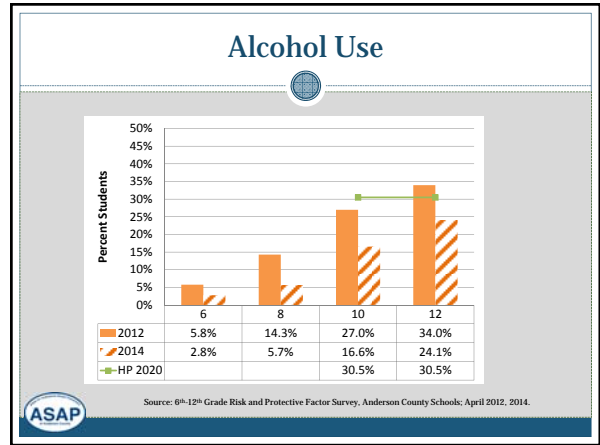


Drug Recognition

COMMON DRUGS OF ABUSE:

VISIBLE WARNING SIGNS & PARAPHERNALIA

- ### Commonly Abused Drugs
- Depressants
 - Tobacco
 - Cannabinoids
 - Dissociative Anesthetics
 - Hallucinogens
 - Opioids (Narcotics)
 - Stimulants
 - Others (inhalants, steroids)




- ### Depressants
- | Drug Facts | Methods of Use |
|--|---|
| <ul style="list-style-type: none"> • Alcohol, Barbiturates, Benzodiazepines • Medical uses: <ul style="list-style-type: none"> ○ Anesthetic, anticonvulsant, hypnotic, sedative, anti-anxiety; some have no medical use • Quick signs of abuse: <ul style="list-style-type: none"> ○ Drunken-like state; drowsiness; slowed body functions. | <ul style="list-style-type: none"> • Drink • Eyeball • Enema (butt-chugging) • Alcohol tampons • Snort • Inhale • Inject • Swallow • Sublingual absorption |

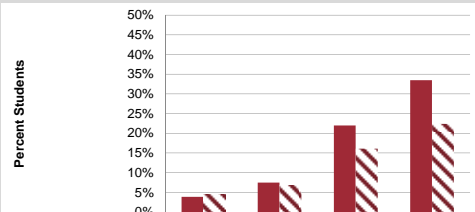


Depressant Buzzwords

- Adult beverage
- Alcamahol
- Alcopop
- Alky
- Roadie
- Training wheels
- Ass whup
- Cheeky few
- Wounded soldier
- Benzos
- Totem poles
- Z-bars
- School bus
- Handlebars




Cigarette Use




	6	8	10	12
2012 Anderson County	3.9%	7.5%	22.0%	33.5%
2014 Anderson County	4.6%	6.9%	16.1%	22.4%

Source: 6th-12th Grade Risk and Protective Factor Survey, Anderson County Schools; April 2012, 2014.



Tobacco


Drug Facts	Methods of Use
<ul style="list-style-type: none"> • Cigarettes, Dip, Snuff, Cigars, Cigarillos, Bidis • Medical uses: <ul style="list-style-type: none"> ○ No medical use • Quick signs of abuse: <ul style="list-style-type: none"> ○ Bad breath, wheezing, coughing, yellow-stained teeth and fingers, frequent colds, mouth sores. 	<ul style="list-style-type: none"> • Smoke • Hookah (water pipe) • Chew • Dip • Snort • Transdermal absorption



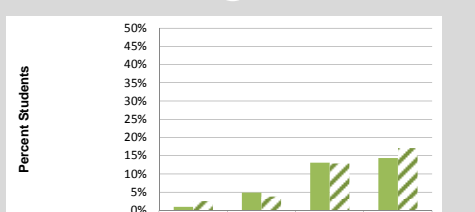


Tobacco Buzzwords

- Cancer stick
- Square
- Cig
- Chew




Marijuana Use




	6	8	10	12
2012 Anderson County	1.0%	4.9%	13.1%	14.4%
2014 Anderson County	2.6%	3.8%	12.9%	17.1%

Source: 6th-12th Grade Risk and Protective Factor Survey, Anderson County Schools; April 2012, 2014.




Cannabinoids

Drug Facts	Methods of Use
<ul style="list-style-type: none"> • Marijuana, Hash • Medical uses: <ul style="list-style-type: none"> ○ None ○ Marinol (synthetic compound approved for appetite stimulant/analgesic) • Quick signs of abuse: <ul style="list-style-type: none"> ○ Causes slowed thinking and reaction time; bloodshot eyes; dilated pupils; impaired motor skills. 	<ul style="list-style-type: none"> • Smoke • Swallow • Steep in oil • Tincture • Vapor (inhale)





Marijuana Buzzwords

<ul style="list-style-type: none"> • Joint • Bowl • Bong • Blunt • 3750 (marijuana and crack rolled in a joint) • 420 (marijuana use) • A-bomb (heroin laced joint) • Ashes • Astro turf • Aunt Mary • B (amount of marijuana to fill a matchbox) • Baby bhong 	<ul style="list-style-type: none"> • Cheeba • Ganja • Chronic (mixed with crack) • Duby/Doobie • Fatty • Juju • Kentucky Blue • LG (Lime Green) • MJ • Philly Blunt • Queen Anne's lace • Roach • Texas Tea • Wet (soaked in PCP-embalming fluid-and dried)
--	---




Dissociative Anesthetics

Drug Facts	Methods of Use
<ul style="list-style-type: none"> • Ketamine, Phencyclidine, Dextromethorphan • Medical uses: <ul style="list-style-type: none"> ○ Anesthetic, sedative • Quick signs of abuse: <ul style="list-style-type: none"> ○ Blank stare ○ Difficulty speaking, incomplete verbal responses, repetitive speaking ○ Increased pain threshold ○ Cyclic behavior (trance-like) 	<ul style="list-style-type: none"> • Swallow • Inject • Drink • Snort • Sprinkle on marijuana • Smoke





Dissociative Anesthetic Buzzwords

<ul style="list-style-type: none"> • Purple Drank • Special K • Vitamin K • Ketaset • Jet • Angel Dust • Embalming Fluid • Dex • Robo 	<ul style="list-style-type: none"> • Dexion • Rojo • Skittles/Skittling • Triple C • Orange Crush • Robotard • Tussing • Vitamin D • Robo-fizzing
--	--




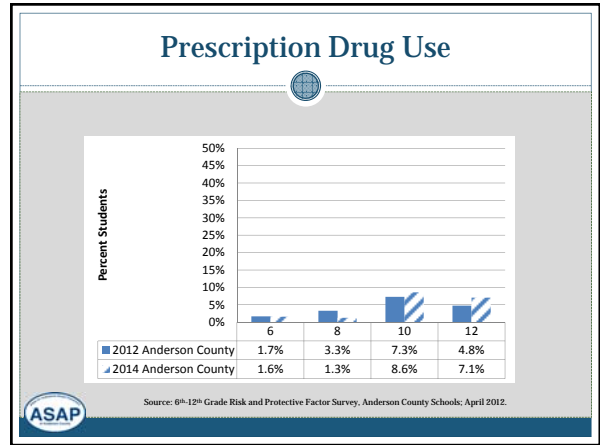
Hallucinogens

Drug Facts	Methods of Use
<ul style="list-style-type: none"> • LSD, Psilocybin, Mescaline, Salvia • Medical uses: <ul style="list-style-type: none"> ○ None (humans) • Quick signs of abuse: <ul style="list-style-type: none"> ○ Dazed appearance ○ Body tremors, uncoordinated ○ Poor perception of time and distance 	<ul style="list-style-type: none"> • Liquid drops • Drink • Steep (drink) • Smoke • Snort • Swallow





Hallucinogen Buzzwords

- Mesc
- Buttons
- Cactus
- Magic Mushrooms
- Shrooms
- Acid
- Microdot
- White Lightning


Opioids

Drug Facts	Methods of Use
<ul style="list-style-type: none"> • Opium, Heroin, Morphine, Hydrocodone • Medical uses: <ul style="list-style-type: none"> ○ Analgesic (painkiller) ○ Antidiarrheal ○ Antitussive • Quick signs of abuse: <ul style="list-style-type: none"> ○ Drowsiness ○ Droopy eyelids ○ Confusion ○ Sedation ○ Track marks 	<ul style="list-style-type: none"> • Swallow • Transmucosal/ Sublingual/Intranasal • Snort • Smoke • Inject • Rectal absorption • Transdermal absorption





Opiate Buzzwords

<ul style="list-style-type: none"> • Belushi • Black Tar • Bobby • Diesel • Oxy • Schmeck • Skag • Watson • Hydros 	<ul style="list-style-type: none"> • Vikes • Norco • Blues • Octagons • Stop Signs
---	---






Stimulants

Drug Facts	Methods of Use
<ul style="list-style-type: none"> • Caffeine, Nicotine, Amphetamine, MDMA, Methylphenidate, Cocaine • Medical uses: <ul style="list-style-type: none"> ○ Narcolepsy ○ ADHD • Quick signs of abuse: <ul style="list-style-type: none"> ○ Increased energy ○ Nervousness ○ Bruxism 	<ul style="list-style-type: none"> • Swallow • Snort • Smoke • Inject




Energy Drinks

- Some may contain alcohol
- Some have an “Energy Blend” of caffeine, taurine, guarine and you don’t know how much you are consuming
- Some cans/bottles have up to 4 servings per container

Synthetic Cannabinoids




Drug Facts	Methods of Use
<ul style="list-style-type: none"> • Synthetic Cannabinoids: K2, Posh, Mr. Smiley, Bliss, Spice, Blue Buddha • Medical uses: <ul style="list-style-type: none"> ○ None • Quick signs of abuse: <ul style="list-style-type: none"> ○ Agitation ○ Excessive sweating ○ Inability to speak ○ Restlessness ○ Aggression 	<ul style="list-style-type: none"> • Swallow • Smoke • Vapor (inhale)





Synthetic Cathinones


Drug Facts	Methods of Use
<ul style="list-style-type: none">• Synthetic Cathinones: Bath Salts• Medical uses:<ul style="list-style-type: none">○ None• Quick signs of abuse:<ul style="list-style-type: none">○ Euphoria○ Increased sex drive○ Paranoia○ Agitation○ Hallucinatory delirium○ Psychotic, violent behavior	<ul style="list-style-type: none">• Swallow• Smoke• Snort• Inject



Resources

- DEA Resource Guide
 - http://www.justice.gov/dea/docs/drugs_of_abuse_2011.pdf
- Street Drugs
 - <http://www.streetdrugs.org/>

www.ASAPofAnderson.org



Follow ASAPofAnderson
on your favorite social media site



 www.ASAPofAnderson.org

Stephanie A. Strutner
865-457-3007
sastrutner@gmail.com

