**MEN'S HEALTH NETWORK in collaboration with the Congressional Men's Health Caucus**

*Congressmen Markwayne Mullin (OK) and Donald Payne, Jr. (NJ) (Co-Chairs)*

**Briefing:**

# Men's and Boys' Mental Health Issues:

# Gateways to Opioid and Drug Abuse?

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## Agenda

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**I.** Opening Remarks

- Ana Fadich, MPH, CHES – Introduction
  *Vice President, Men's Health Network, Chair, APHA Men's Health Caucus*
- Congressman Donald Payne, Jr. (Confirmed), *Tenth District, New Jersey*
- Congressman Markwayne Mullin (Invited), *Second District, Oklahoma*

**II.** Speakers

- Eric Murphy, PhD
  *Program Chief*
  *Depression and Suicide Related Behaviors Program, National Institute of Mental Health (NIMH)*
- Wizdom Powell, PhD, MPH, MS
  *Director*
  *Health Disparities Institute, University of Connecticut*
- **Gregory Tau, MD, PhD**
  ***Faculty, Child and Adolescent Psychiatry***
  ***Columbia University Medical Center***
- Nathaniel Counts, JD
  *Senior Policy Director*
  *Mental Health America*

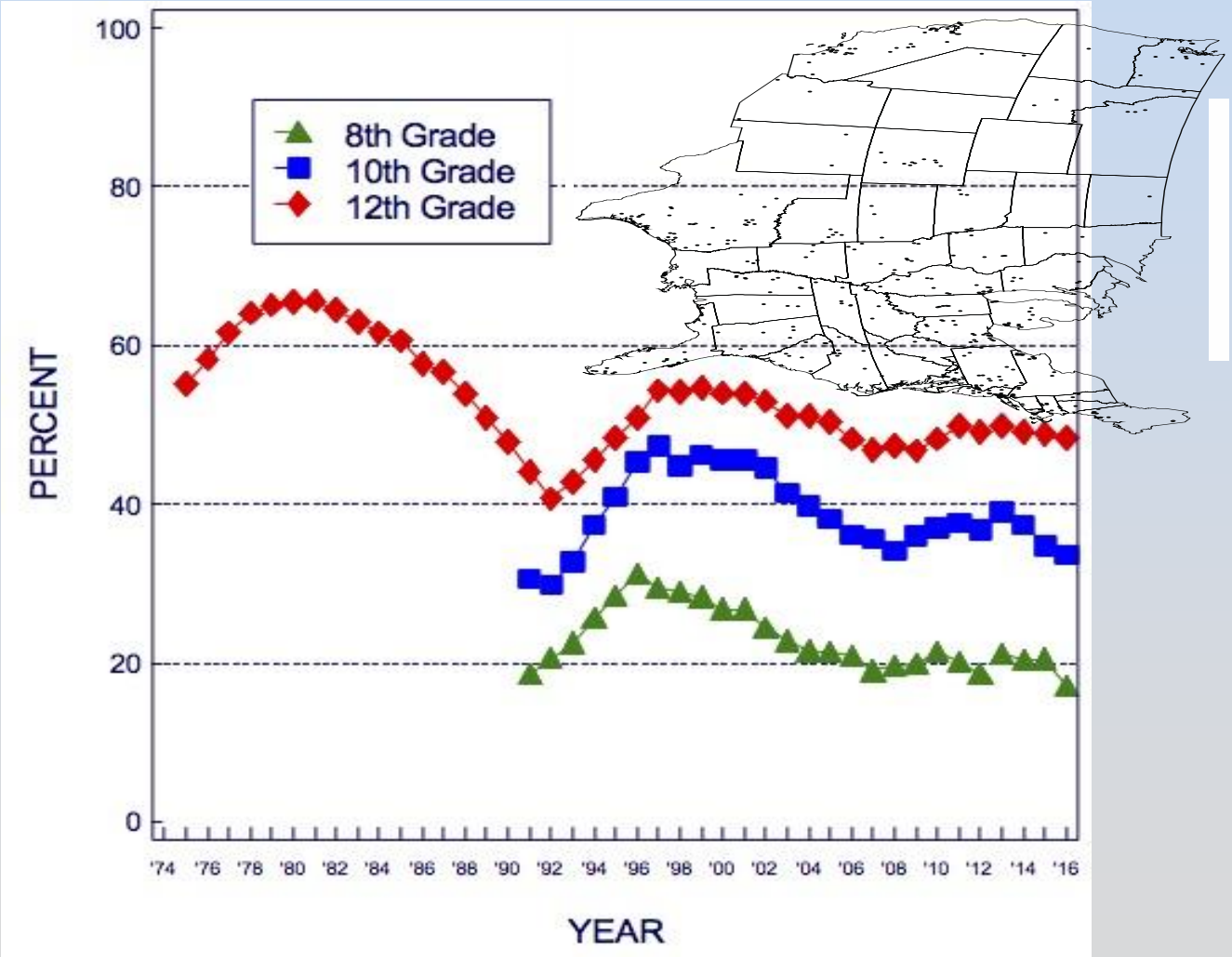
# When Drugs & Mental Illness Collide: An Update on Dually Diagnosed Youth

**Gregory Tau MD PhD FAPA FASAM**

Assistant Professor | Child & Adolescent Psychiatry
Columbia University Medical Center | New York State Psychiatric Institute

***Comorbidity is the Rule, Not the Exception***

# Lifetime Prevalence of Any Substance Use by Youth




Johnston *et al.*. Monitoring the Future national survey results on drug use, 1975-2016
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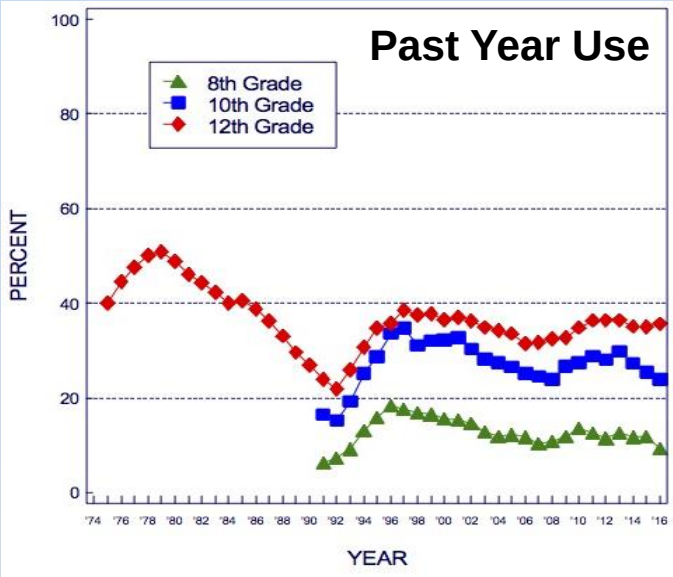
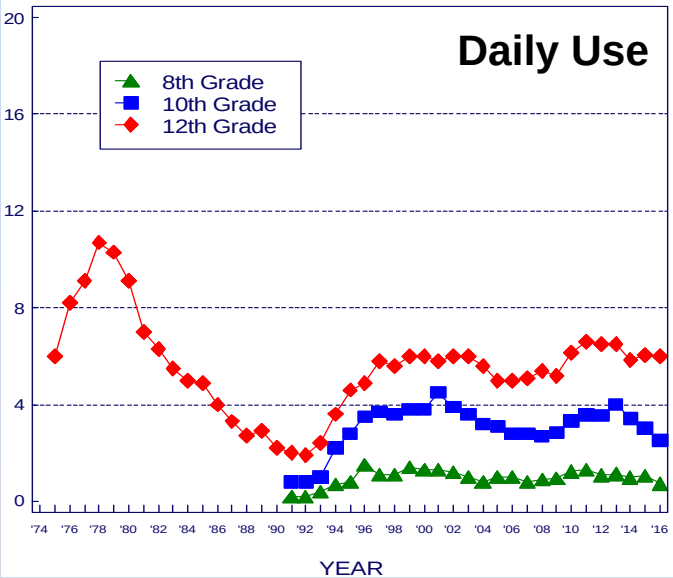
# Marijuana Use by Youth




| Grade | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| **8th** | 10.9 | 11.8 | 13.7 | 12.5 | 11.4 | 12.7 | 11.7 | 11.8 | 9.4 | 10.1 |
| **10th** | 23.9 | 26.7 | 27.5 | 28.8 | 28 | 29.8 | 27.3 | 25.4 | 23.9 | 25.5 |
| **12th** | 32.4 | 32.8 | 34.8 | 36.4 | 36.4 | 36.4 | 35.1 | 34.9 | 35.6 | 37.1 |

- 2017: 1st significant annual increase in in 7years (22.7→24%) across grades

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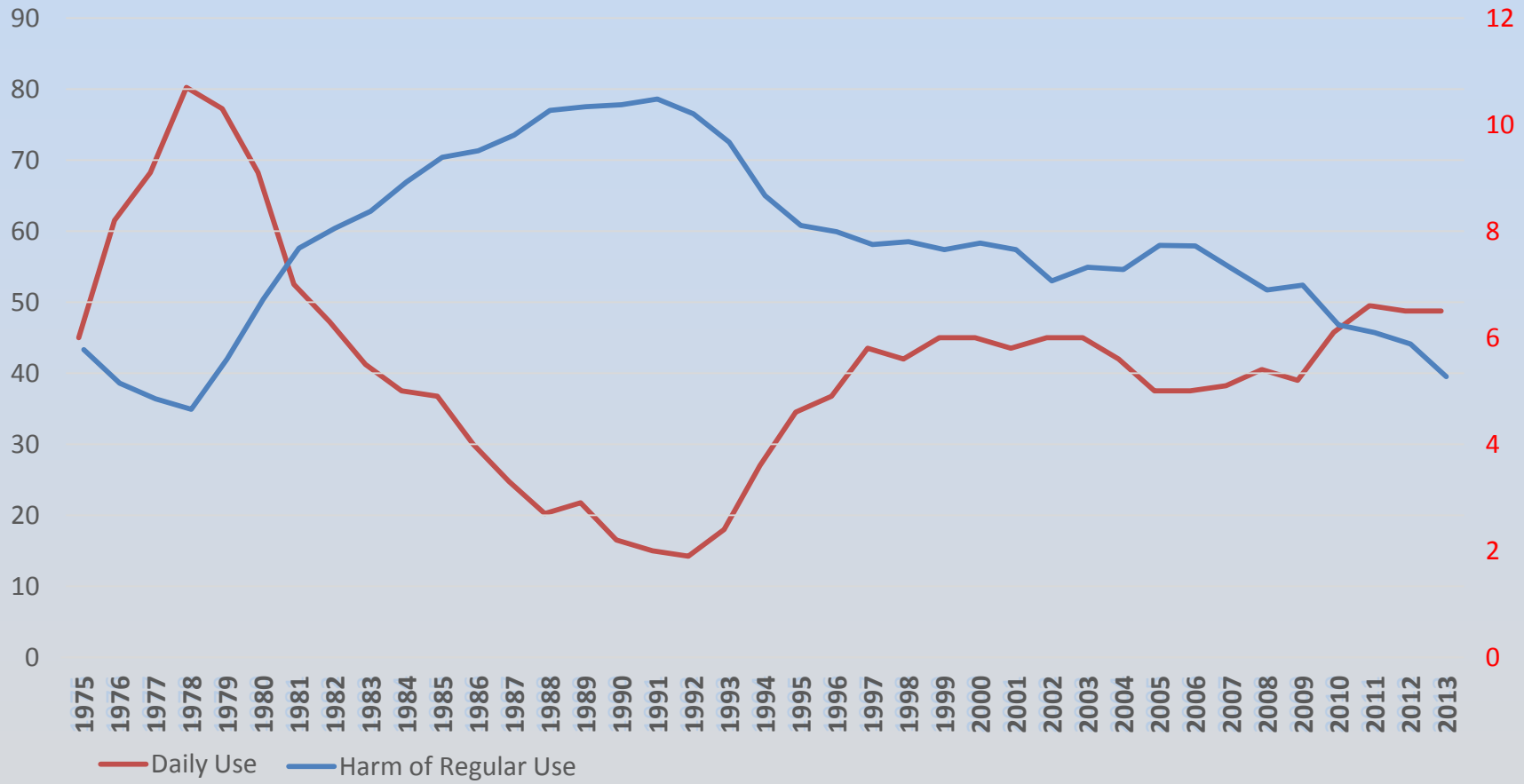
# Youth Perception of Harm of Regular Marijuana Use




- Historically, marijuana use has gone up as adolescents minimize its harm
- 2017: risk adolescents see in marijuana use declined to lowest level in 4 decades

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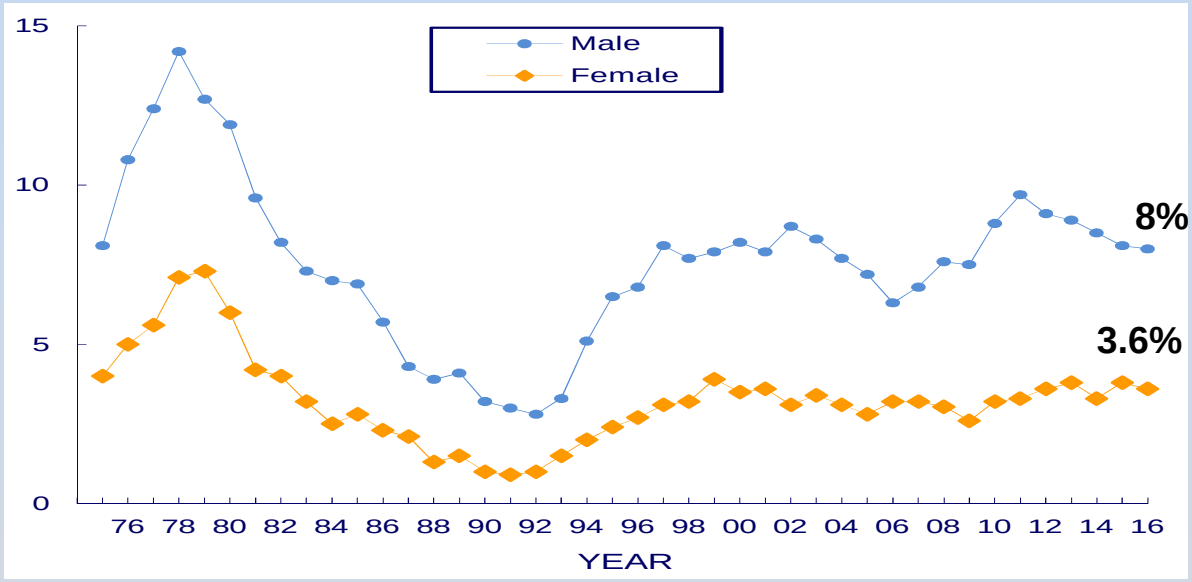
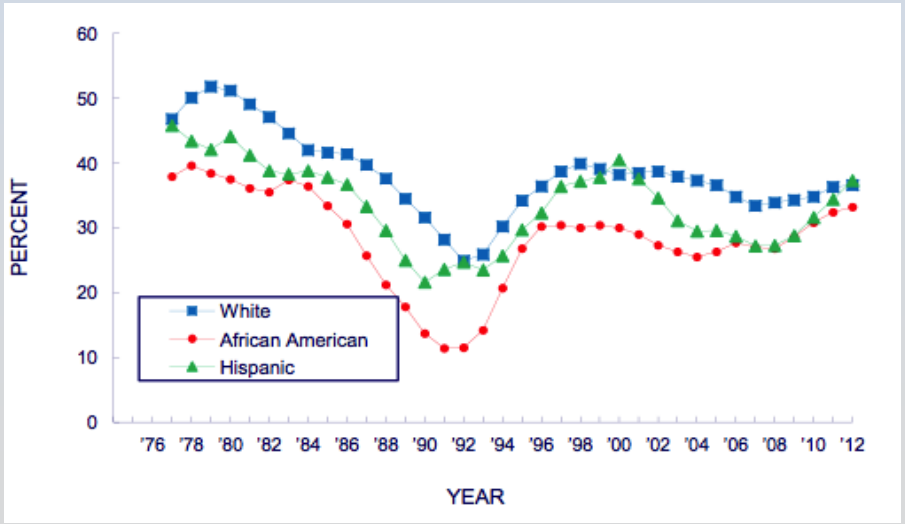
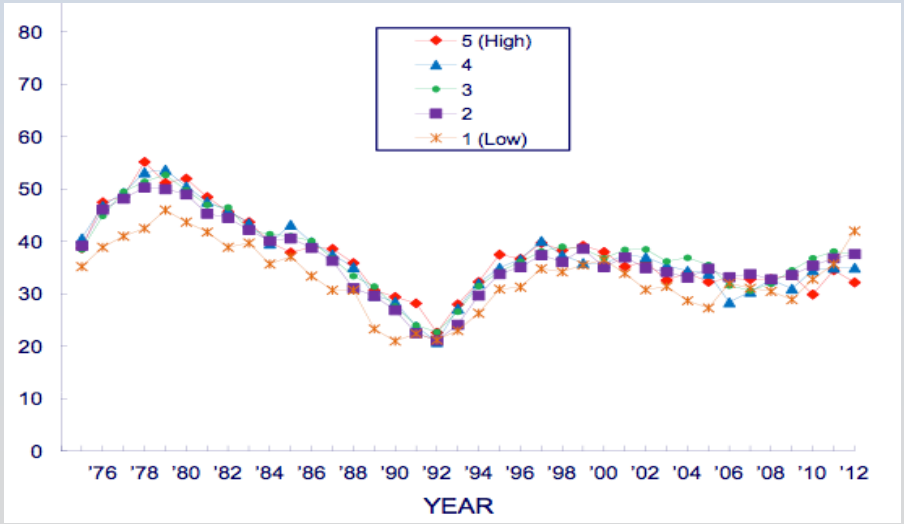
# Marijuana Use - Subgroups

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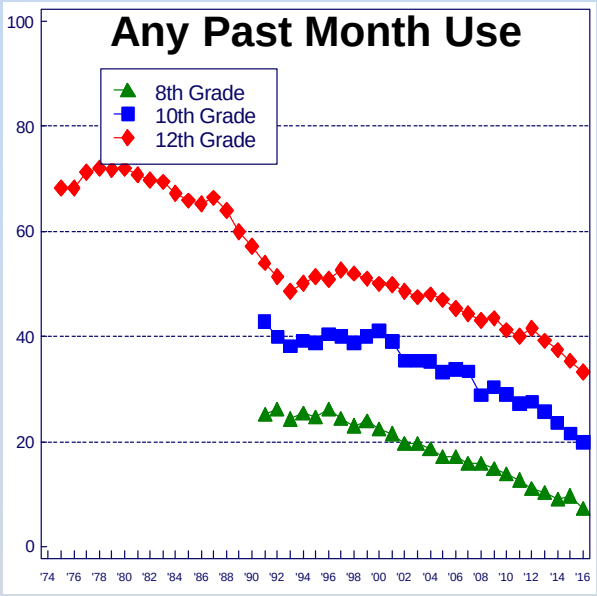
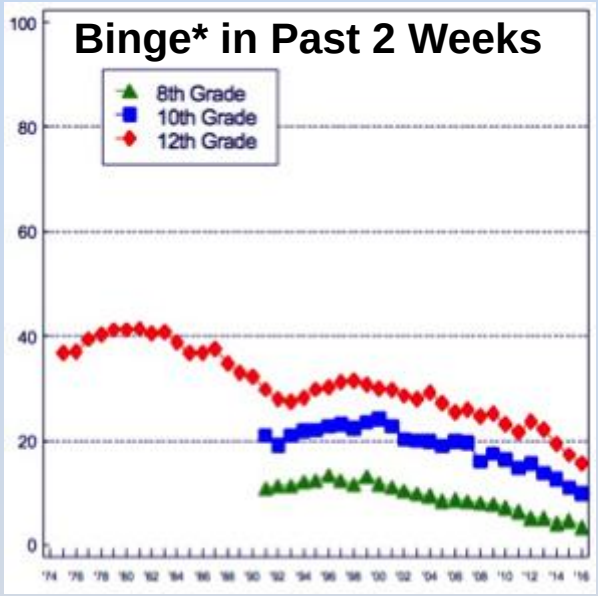
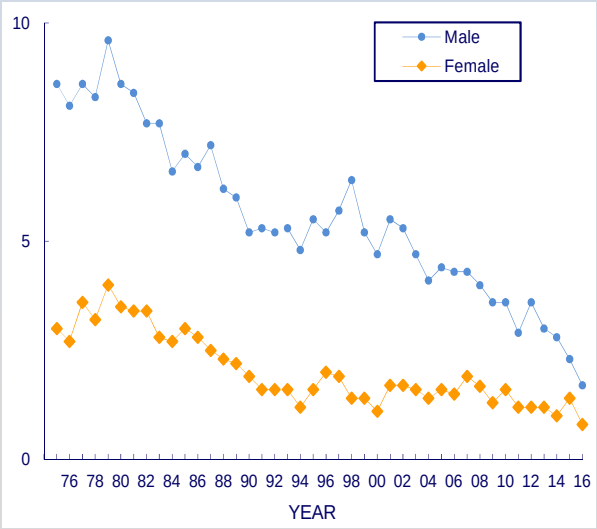
# Alcohol Use by Youth





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# Youth and Vaping in 2017

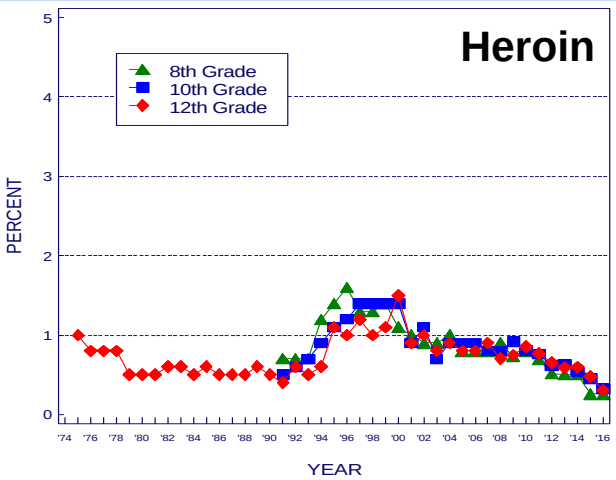
**Vaping**
Use of electronic vaporizer device to inhale nicotine products, cannabis products or flavoring

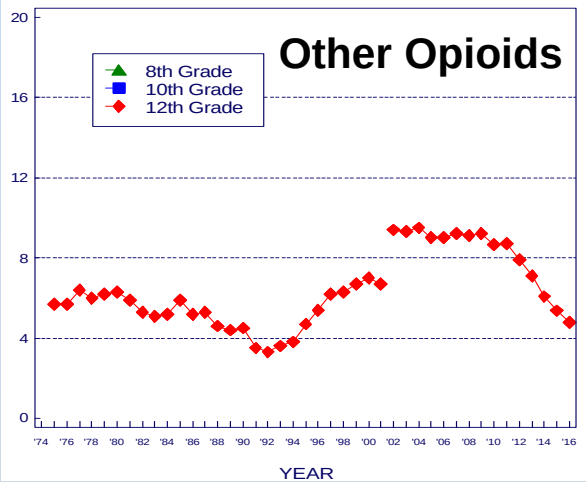
**Nicotine Vaping**
Past year: 19% of 12th graders, 16% 10th graders, 8% 8th graders.
*Monitoring the Future 2017*
Vaping is addictive: Increases likelihood of subsequent cigarette use and more vaping
*Goldenson et al. JAMA Pediatrics 2017*
*Hammond et al. CMAJ 2017*
Male gender and marijuana use are associated with e-cigarette use in youth
*Spindle et al. Addictive Behaviors 2017* (College Students)

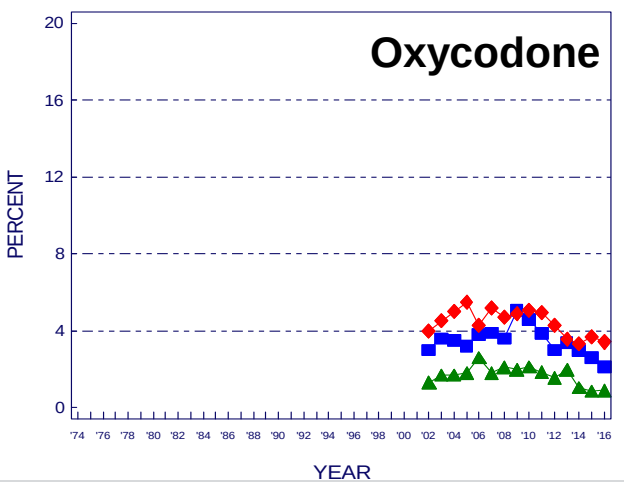
Though vaping may be a harm reduction and smoking cessation strategy, it is the gateway to nicotine use by many teens and is associated with concurrent and subsequent cigarette smoking

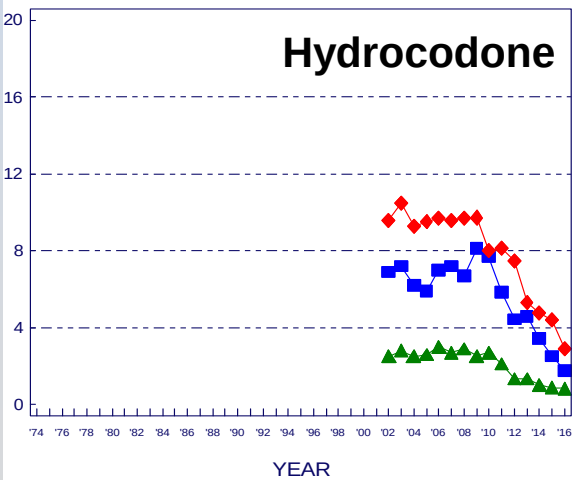
**Cigarette smoking**
Rates continue decline 2017 to historic lows

# Opioids and Youth 2017




Despite opioid epidemic in the US, use by adolescents remains low and showed no significant change in 2017, whereas reduction was seen in past years.

Johnston *et al.*. Monitoring the Future national survey results on drug use, 1975-2017
Institute for Social Research, The University of Michigan.

# Prevalence of Any Substance Use by Youth

| | Grade | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lifetime** | 8th | 19.6 | 19.9 | 21.4 | 20.1 | 18.5 | 21.1 | 20.3 | 20.5 | 17.2 | 18.2 |
| | 10th | 34.1 | 36 | 37 | 37.7 | 36.8 | 39.1 | 37.4 | 34.7 | 33.7 | 34.3 |
| | 12th | 47.4 | 46.7 | 48.2 | 49.9 | 49.1 | 49.8 | 49.1 | 48.9 | 48.3 | 48.9 |
| **Past Year** | 8th | 14.1 | 14.5 | 16 | 14.7 | 13.4 | 15.2 | 14.6 | 14.8 | 12 | 12.9 |
| | 10th | 26.9 | 29.4 | 30.2 | 31.1 | 30.1 | 32.1 | 29.9 | 27.9 | 26.8 | 27.8 |
| | 12th | 36.6 | 36.5 | 38.3 | 40 | 39.7 | 40.1 | 38.7 | 38.6 | 38.3 | 39.9 |
| **Past 30 Day** | 8th | 7.6 | 8.1 | 9.5 | 8.5 | 7.7 | 8.7 | 8.3 | 8.1 | 6.9 | 7 |
| | 10th | 15.8 | 17.8 | 18.5 | 19.2 | 18.6 | 19.2 | 18.5 | 16.5 | 15.9 | 17.2 |
| | 12th | 22.3 | 23.3 | 23.8 | 25.2 | 25.2 | 25.2 | 23.7 | 23.6 | 24.4 | 24.9 |

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# Substance Use Disorder (DSM 5)

**Loss of Control**

- Substance taken in larger amounts / over longer period than intended
- Persistent desire / unsuccessful efforts to cut down or control use
- Continued substance use despite having persistent / recurrent social / interpersonal problems caused / exacerbated by substance

**Craving**

- Strong desire, or urge to use substance

**Time Consuming**

- A great deal of time is spent in activities necessary to obtain, use, or recover from effects of substance

**Consequences**

- Recurrent substance use resulting in failure to fulfill major role obligations
- Important social, occupational, recreational activities given up / reduced

**Tolerance**

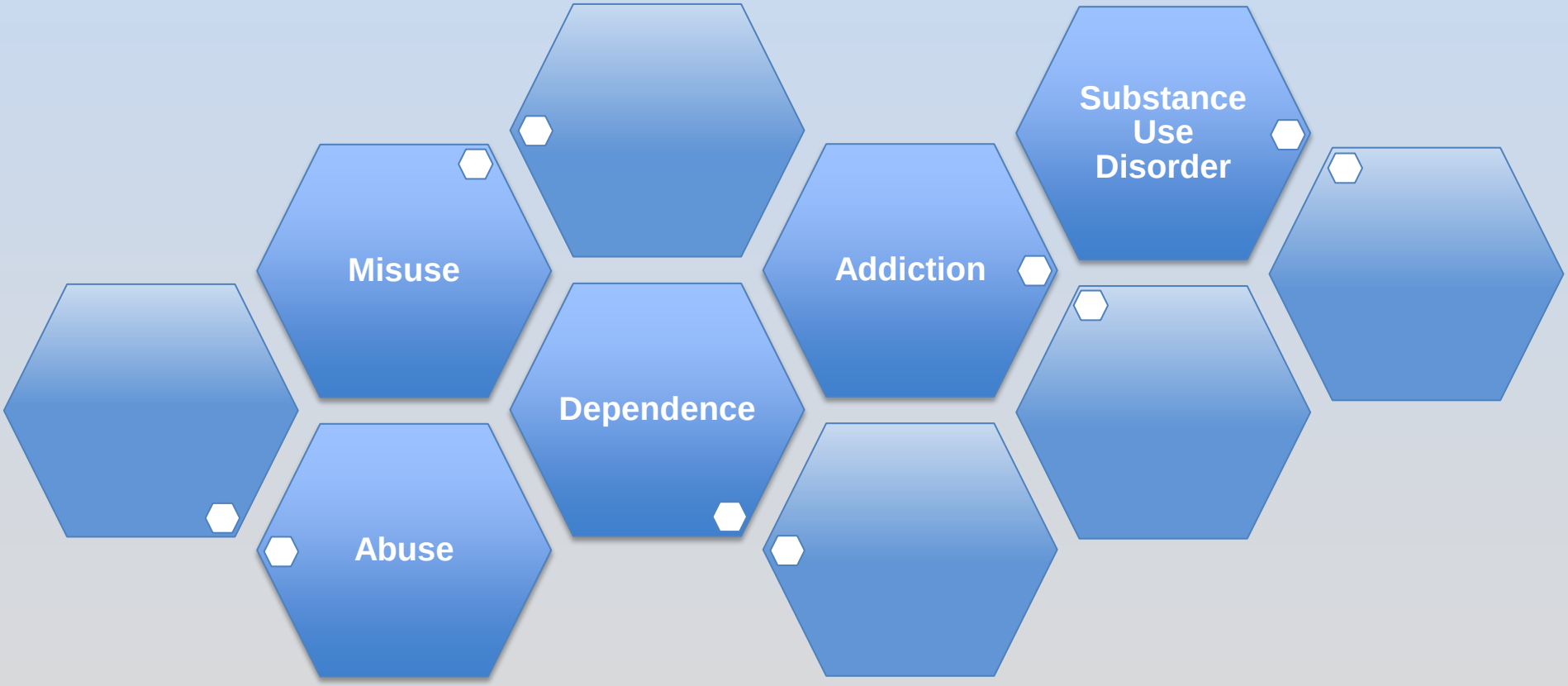
- need for increased amounts of substance to achieve effect or diminished effect with continued use

**Withdrawal**

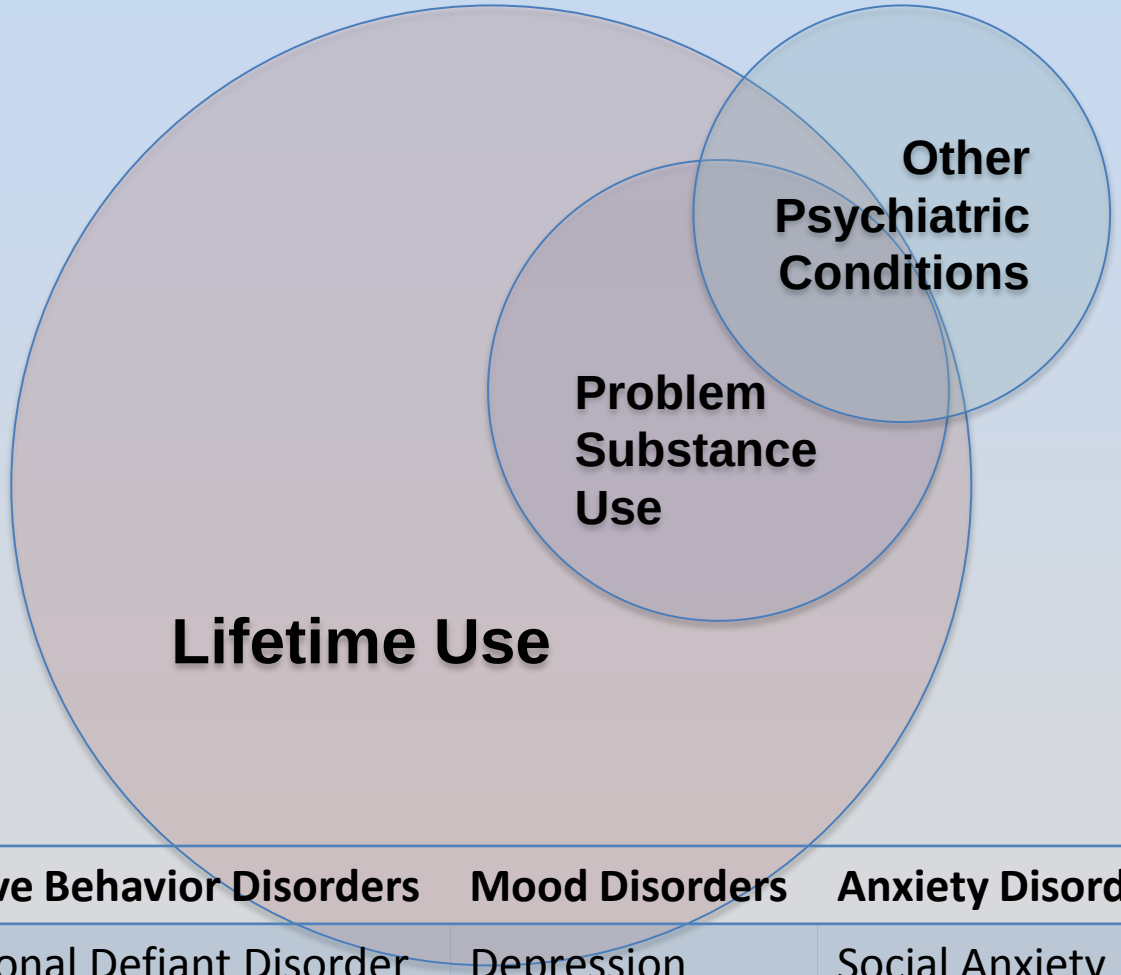
- Characteristic withdrawal syndrome specific to the substance or used substance to relieve / avoid withdrawal symptoms

| Symptoms | Severity |
|---|---|
| 2-3 | Mild |
| 4-5 | Moderate |
| 6+ | Severe |

# Addiction Terminology (Semantics)



# Comorbidity is the Rule, Not the Exception



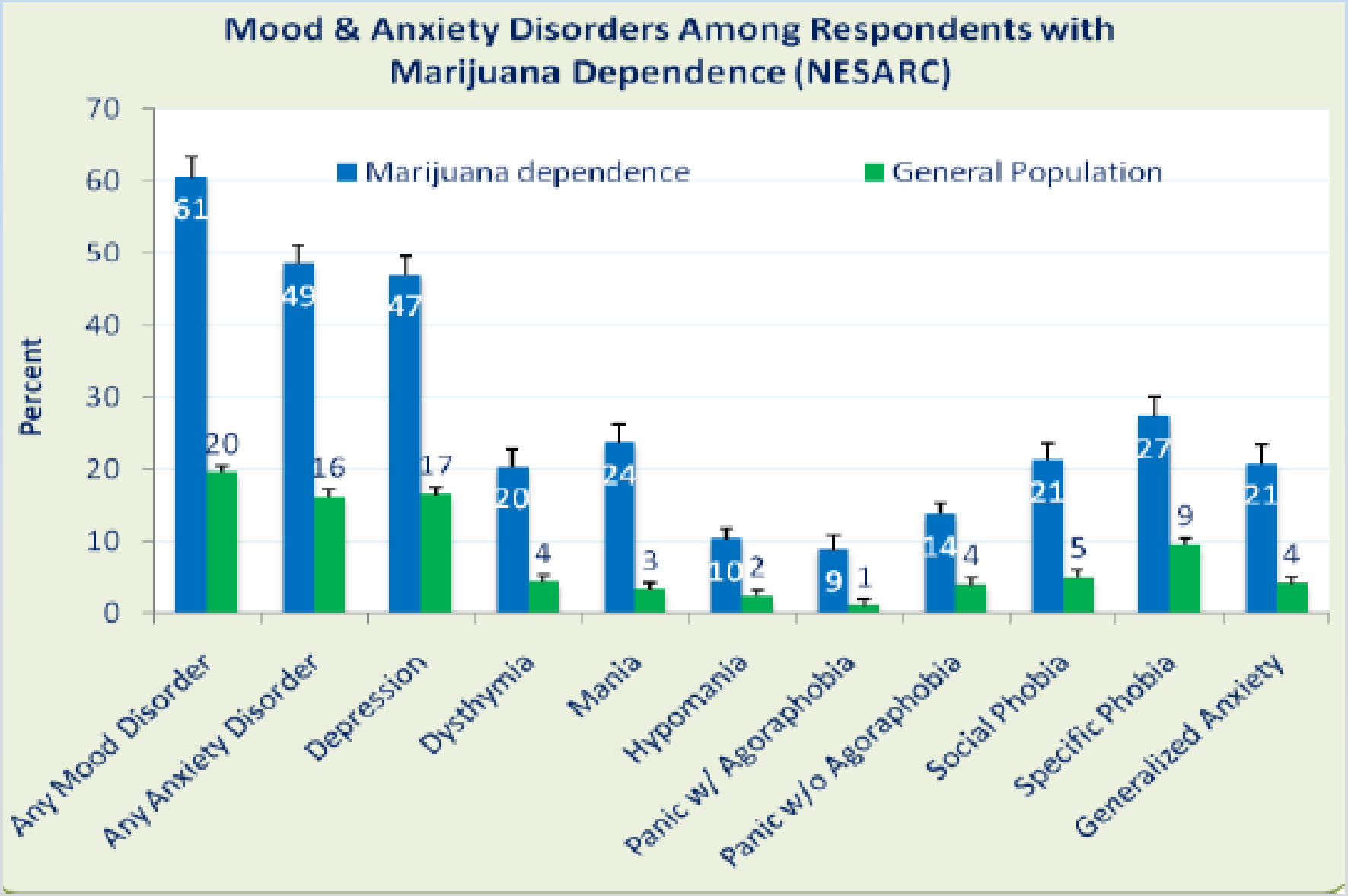

| Disruptive Behavior Disorders | Mood Disorders | Anxiety Disorders | Psychotic Disorders |
|---|---|---|---|
| Oppositional Defiant Disorder | Depression | Social Anxiety | Schizophrenia |
| Conduct Disorder | Bipolar | Panic | Psychosis |
| ADHD | | PTSD | |

# Comorbidity is the Rule, Not the Exception

- Shared risk for SUDs and psychiatric illness
- Overlapping symptoms of SUDs and psychiatric illnesses
- SUDs predispose to psychiatric illness
- Psychiatric illness predisposes to SUDs

# Comorbidity is the Rule, Not the Exception

- SUDs affect the course of psychiatric illness
- Psychiatric illness affects course of SUDs
  - More treatment contacts
  - More difficult clinical course
  - Worse clinical outcomes
  - Decision making around substance use influenced by symptoms of psychiatric illness
    - Cognitive issues
    - Escape aversive symptoms (“self medication”)


Mood & Anxiety Disorders Among Respondents with Marijuana Dependence (NESARC)
Percent
70
60
50
40
30
20
10
0
Marijuana dependence
General Population
61
20
49
16
47
17
20
4
24
3
10
2
9
1
14
4
21
5
27
9
21
4
Any Mood Disorder
Any Anxiety Disorder
Depression
Dysthymia
Mania
Hypomania
Panic w/ Agoraphobia
Panic w/o Agoraphobia
Social Phobia
Specific Phobia
Generalized Anxiety

# Disruptive Behavior Disorders

- More prevalent in males than females
- **Attention Deficit / Hyperactivity Disorder**
  - Inattention
  - Hyperactivity
  - Impulsivity
  - Associated neurocognitive deficits and emotional dysregulation
- **Oppositional Defiant Disorder**
  - Anger / Irritability
  - Defiance / Vindictiveness
  - Argumentativeness / Indignation – “not fair!”
- **Conduct Disorder**
  - Violation of rights of others & societal rules
  - Impaired empathy & remorse

# Co-Morbidity of AD/HD & SUDs

- ADHD in ~50% of substance using adolescents referred to treatment
- ADHD in 64% of adolescents <15 y/o with substance dependence
- ADHD in 38% for adolescents with cannabis dependence in a large trial

- ADHD associated with a alcohol use disorder by young adulthood
- ADHD significantly increases the risk of non-alcohol substance use disorder in young adulthood
- ADHD significantly increases odds of nicotine use by mid-adolescence ADHD hyperactivity / impulsivity (not inattention) predict early substance initiation

# Mood Disorders

- Depression
  - Low mood and difficulty experiencing pleasure
  - Low energy, motivation, and concentration
  - Low self-esteem, guilt
  - Changes in appetite and sleep
  - Suicidality
  - More common in females
- Bipolar Disorder (manic-depressive illness)
  - Elevated or irritable mood
  - Increased energy, decreased need for sleep, increased goal-directed activity
  - Talkative, rapid thoughts
  - Increased self esteem and involvement in pleasurable / risky activities
  - Suicidality
  - Gender differences in features of illness

# Depression

- Major Depressive Disorder is diagnosed in 24%-50% clinical adolescents samples of with SUD
- 50% of depressed adolescents with SUDs also have CD

- Girls with CD are more likely to become depressed in adolescence
- Boys with Depression are more likely to develop CD in adolescence

- Marijuana use in adolescents is associated with developing Depression

# Bipolar Disorder

**Adults**

- Bipolar is the 2nd most commonly associated psychiatric disorder with SUDs
- Adults with bipolar disorder have a 50% lifetime risk of developing SUD
- In 67% of individuals with bipolar disorder, SUD precedes bipolar and in 24% of individuals SUD occurs within same year as the bipolar disorder
- Risk factors for SUD: mixed manic-depressive stated, family history of SUD, anxiety

**Adolescents**

- 16% teens with Bipolar Disorder have concurrent SUD

# Bipolar Disorder

**SUD negatively impact course of illness of Bipolar Disorder**

- Earlier onset
- Shortened cycle length
- Delayed time to recovery
- Shortened time to relapse
- Higher number of recurrences
- Mixed & rapid cycling
- Increased chronicity

**SUD negatively impact Bipolar Disorder treatment outcomes**

- Greater disability
- Greater cognitive impairment
- More medical complications
- Treatment non-adherence
- Increased suicide risk and thus increased mortality

# Anxiety Disorders

**Generalized Anxiety Disorder (females)**

- Extreme worry
- Intolerance of uncertainty
- Physical manifestations of the stress of anxiety

**Social Anxiety Disorder (equal)**

- Discomfort with judgment and scrutiny by others
- Avoidance of some or many social situations
- Physical symptoms of anxiety (panic) when confronted with difficult social situations

**Obsessive Compulsive Disorder (gender difference in features)**

- Intrusive thoughts
- Compulsions to perform an act or a ritual to neutralize the thought

**Post Traumatic Stress Disorder**

- Enduring reaction to a traumatic event
- Intrusive recollections of traumatic event with distress on exposure
- Avoidance of reminders
- Changes in mood and thinking

# Anxiety Disorders

Anxiety & substance use → complex relationship

- Anxiolytic effects of substances:
  - Benzodiazepines
  - Opioids
  - Alcohol
  - Marijuana (individual experience, cannabinoid composition)
- Anxiogenic effects of substances
  - Stimulants (cocaine, amphetamines)
  - Withdrawal (benzodiazepines, alcohol)
  - Opioids: anxiety about withdrawal symptoms drives drug seeking
  - Marijuana (individual experience, cannabinoid composition, withdrawal syndrome)

# Anxiety Disorders

Potential pathways to substance use in anxious adolescents

- Anxiety → risk aversion → delayed initiation of use

- Rewarding use initiated → escalate of use → complex interaction between anxiety, intoxication, withdrawal, reinforcement, and behavior.

# Anxiety Disorders

- Anxiety disorders typically precede substance use problems
  - Social anxiety disorder predicts cannabis dependence
  - Social anxiety & panic disorder predict problem
    - Effects of environment (family, peer) or other comorbidity (depression)?
- Association between chronic cannabis use and later anxiety disorders
  - panic disorder, social anxiety disorder, generalized anxiety disorder
  - earlier onset of panic attacks
- Some anxiety disorders (separation anxiety) may be protective from SUD

# PTSD

- PTSD and marijuana use disorder are highly comorbid
  - Worse PTSD symptoms (particularly hyper-arousal) are associated with increased marijuana use
- PTSD predicts SUD strongly in some studies
  - Trauma also increases likelihood of depression, and oppositionality.
- PTSD+SUD associated worse treatment course
  - Symptom severity, functioning, relationship quality, sexual risk taking, self harm, other comorbidities (e.g depression), use of Multiple substance
- PTSD+SUD → risk for re-traumatization

# PTSD

- PTSD 5% in community youth with alcohol use disorder (5x nonusers)
  - The proportion of substance users with PTSD is even higher in a juvenile detention sample.
- PTSD diagnosed in 25% adolescent girls & 14% adolescent boys in youth with SUD from a national sample
  - In this sample Substance Use Disorder was diagnosed in 24% of adolescent girls and 30% of adolescent boys with PTSD
- Types of Trauma types that put youth with PTSD at risk for suds
  - Sexual/physical assault
  - Witnessing violence (especially in parent w/ suds)

# Psychotic Disorders

- Psychosis is the experience of distortion in reality with delusions and hallucinations
- SUD - most common comorbidity in individuals (adults) with schizophrenia
    - Incidence: 20-40% of those with schizophrenia
    - Lifetime prevalence: 50-80%
- 40-60% of individuals with first episode psychosis have a SUD (late teen / young adult)
- Substance use typically precedes psychotic d/o or occurs concurrently
- MJ most common substance (other than nicotine)
    - No evidence that marijuana acts as “self-medication” to relieve psychotic symptoms but instead be used to acutely relieve feelings of dysphoria)
    - Nicotine may help with cognition or negative symptoms

# Psychotic Disorders

Link between Cannabis & Risk of Psychosis

- 40% increases risk of psychosis
- Risk is dose-dependent
  - Availability of more potent cannabis product (higher THC content)
  - K2/spice
  - Increased ER visits for acute psychosis

***"There is now sufficient evidence to warn young people that using cannabis could increase their risk of developing a psychotic illness later in life"***

- Cannabis & Risk of schizophrenia
  - Especially in vulnerable individuals (x2-3 fold)
    - Earlier onset
    - More severe illness
    - prodromal symptoms
    - progression to daily use – associated w/ clinical change
    - Relationship is dose dependent

***Scant evidence for a causal link***

# What to do?

- Increase funding for education (knowledge, stigma), prevention, screening, treatment and research
- Child Health Insurance Program (CHIP) – Thank you!
- 21st Century Cures / Stop Act
  - Secures funding for SBIRT (Screening, Brief Intervention & Referral to Treatment
  - SBIRT is an evidence-based strategy to identify youth at risk for SUD and get them the help they need!
- Youth Act (House)
  - SAMSHA grant to extend MAT (Medication-Assisted Treatment) for Opioid Use Disorder to minors.

# Thank You