

# The Key Role of Prevention in Addressing the Current Landscape of Substance Use in America: A Perspective

Elinore F. McCance-Katz, MD, PhD  
Assistant Secretary for Mental Health and Substance Use  
Substance Abuse and Mental Health Services Administration  
U.S. Department of Health and Human Services

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# Outline

- The Opioid Epidemic: What does it look like?
  - Epidemiology
  - Treatment/Recovery
- Marijuana
- Challenges for prevention professionals
- SAMHSA resources



# 2016 NATIONAL SURVEY ON DRUG USE AND HEALTH (NSDUH)

Among those with a substance use disorder about:

- **1 IN 3 (37%)** struggled with illicit drugs
- **3 IN 4 (75%)** struggled with alcohol use
- **1 IN 9 (12%)** struggled with illicit drugs and alcohol

Among those with a mental illness about:

- **1 IN 4 (23%)** had a serious mental illness

**7.5%**  
**(20.1 MILLION)**  
People aged 12 or  
older had a  
substance use disorder

**3.4%**  
**(8.2 MILLION)**  
18+ HAD BOTH  
substance use disorder  
and a mental illness

**18.3%**  
**(44.7 MILLION)**  
People aged  
18 or older had a  
mental illness



# NSDUH: THE GRIP OF OPIOIDS

**11.8 MILLION PEOPLE W/OPIOID MISUSE (4.4% OF TOTAL POPULATION)**

**11.5 MILLION**  
Rx Pain Reliever Misusers  
(97.4% of opioid misusers)

**948,000**  
Heroin Users  
(8% of opioid misusers)

**6.9 MILLION**  
Rx Hydrocodone

**3.9 MILLION**  
Rx Oxycodone

**228,000**  
Rx Fentanyl

**641,000**  
Rx Pain Reliever Misusers  
& Heroin Users  
(5.4% of opioid misusers)



# Source Where Pain Relievers Were Obtained for Most Recent Misuse among People Aged 12 or Older, NSDUH 2016

Prescriptions from More Than One Doctor (1.4%)      Stole from Doctor's Office, Clinic, Hospital, or Pharmacy (0.7%)

Prescription from One Doctor (35.4%)

Given by, Bought from, or Took from a Friend or Relative  
53.0%

Got through Prescription(s) or Stole from a Health Care Provider  
37.5%

From Friend or Relative for Free (40.4%)

Some Other Way  
3.4%

Bought from Friend or Relative (8.9%)

Bought from Drug Dealer or Other Stranger  
6.0%

Took from Friend or Relative without Asking (3.7%)

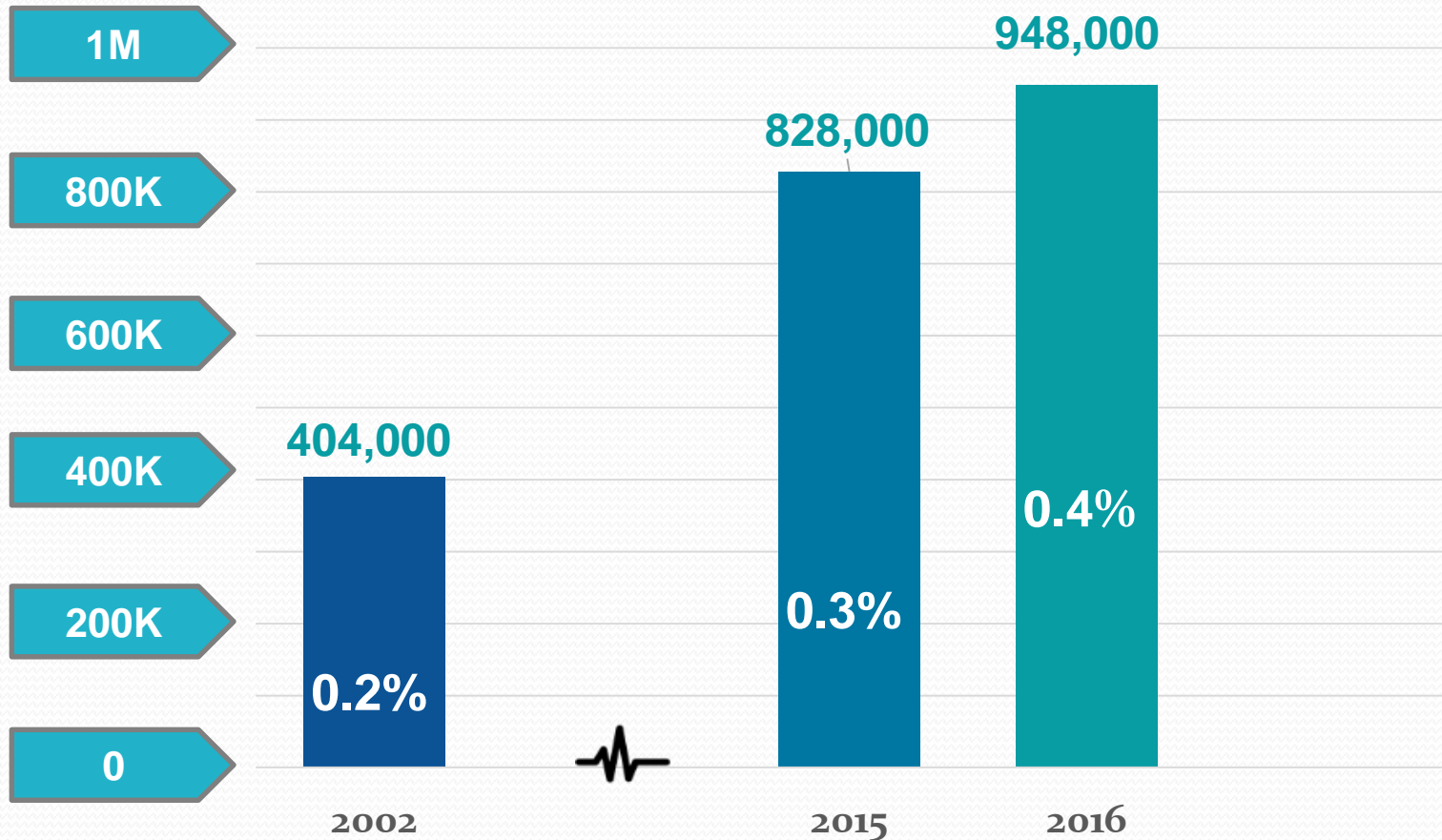
**11.5 Million People Aged 12 or Older Who Misused Prescription Pain Relievers in the Past Year**

# The Opioid Crisis: A Changing Epidemic

- Roots in the over prescribing of opioid painkillers
- Since 2011 overdose deaths from Rx opioids have leveled off, deaths from heroin and fentanyl are rising fast
- Present: several states where the drug crisis is particularly severe, including Rhode Island, Pennsylvania and Massachusetts, fentanyl is now involved in over half of all overdose fatalities
- 2011-forward: Increased regulation of prescribing practices, introduction of abuse deterrent opioid analgesics, heroin use doubled
- Recent studies: 80% of heroin users started abusing Rx opioids and transitioned to heroin because prescription painkillers were more difficult to obtain and more expensive than heroin



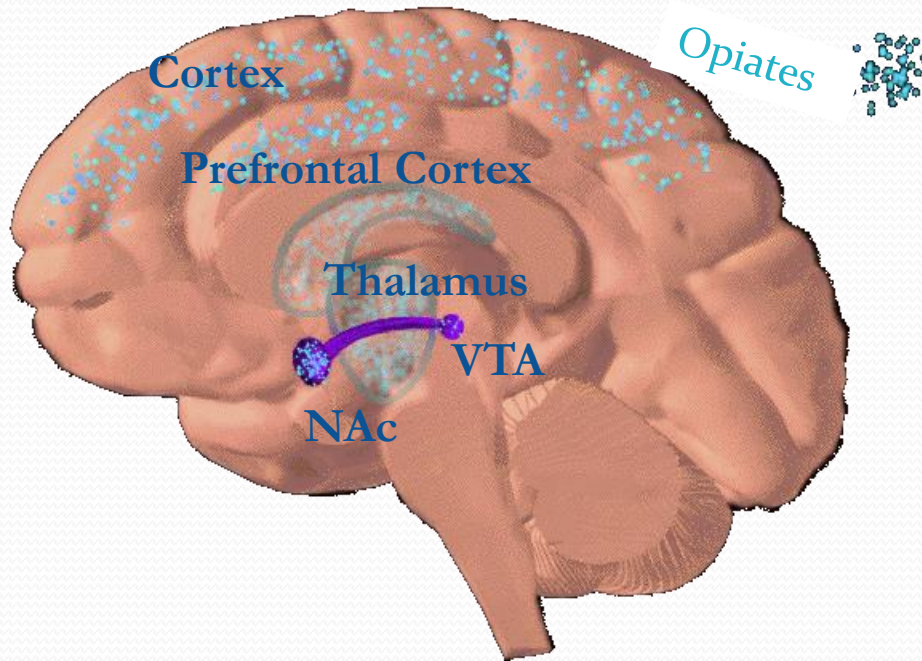
# HEROIN USE: PAST YEAR, 12+



2002-2016:  
2.3 fold increase in heroin users  
6.6 fold increase in heroin deaths

Heroin Deaths:  
2002: 2,089  
2015: 13,101  
2016: 13,219

# Etiology of Opioid Abuse: Neurobiology of Addiction



Mu opioid receptors are distributed widely in the brain. While binding in the thalamus contributes to analgesia, binding in the cortex produces impaired thinking/balance; binding in prefrontal cortex contributes to an individual's decision about how important use of the drug is (salient value of the cue) and ventral tegmental area (VTA)/nucleus accumbens (NAc) is associated with euphoria that some experience (i.e. the "high").



# Opioid Use Disorder: Treatment and Recovery Services

- Prescription opioid pain medications and heroin are the same types of drugs: opioids
- Treatments are the same:
  - **Clinical care**
  - Medication and psychosocial interventions
    - May be inpatient, outpatient, residential
  - **Social supports**



# How is Opioid Use Disorder Treated?

- **Combination of FDA-approved medication (Medication Assisted Treatment (MAT)):** for as long as the person benefits from the care
  - Naltrexone: blocks effects of opioids
  - Methadone: long acting, once-daily, opioid from specially licensed programs
  - Buprenorphine/naloxone: long acting, once-daily, opioid from doctor's offices; available by prescription
- **Medical Withdrawal ("Detoxification")**
  - > 80% relapse rate in the year following treatment
  - High risk for overdose and death when relapse occurs
  - Should not be a stand alone treatment
- **Addressing Safety:** Naloxone dispensing



# How is Opioid Use Disorder Treated?

- **Psychosocial therapies/treatment components:**
  - Counseling: Coping skills/relapse prevention
  - Education about issues related to substance use
  - PDMP use
  - Toxicology screening
- **Plus Recovery Supports: Rebuilding One's Life**
  - Social supports to bring the person back into the healthy community: family, friends, peers, faith-based supports
  - Recovery Housing/Residential Treatment Facilities
  - Employment/Vocational training/education
  - Assistance with transportation
  - Assistance with child care
- **Behavioral Health Treatment Services Locator:**
- **Findtreatment.samhsa.gov**



# 2.4 million Americans with Opioid Addiction

**ONLY 1 IN 5 INDIVIDUALS WITH OPIOID USE DISORDERS RECEIVED SPECIALTY TREATMENT FOR ILLICIT DRUGS**



**37.5% OF PEOPLE WITH HEROIN USE DISORDERS RECEIVED TREATMENT**



**17.5% OF PEOPLE WITH RX PAIN RELIEVER USE DISORDERS RECEIVED TREATMENT**

NSDUH, 2016

# OPIOID CRISIS: A PUBLIC HEALTH EMERGENCY

## HHS FIVE-POINT OPIOID STRATEGY

1 Strengthening public health surveillance

2 Advancing the practice of pain management

3 Improving access to treatment and recovery services

4 Targeting availability and distribution of overdose-reversing drugs

5 Supporting cutting-edge research

# SAMHSA/HHS: Ongoing Programs Addressing the Opioid Crisis

- Support for evidence-based prevention, treatment, recovery services for opioid use disorder
  - STR grants to states
  - Block grants to states\*
- TA to states/providers/other federal agencies (HRSA, IHS, DOJ) on EBP: MAT, psychotherapies, PDMP, toxicology screens\*
  - Training programs: ATTCs, PCSSMAT, CIHS, STR TA/T grant
  - Workforce development\*: DATA waiver, mentoring, continuing education
  - Naloxone access/First Responders/Peers
- Special Emphasis Programs:
  - Privacy Laws: Family inclusion in medical emergencies: overdose
  - Pregnant/post partum women/NAS
  - CJ programs with MAT\*
  - Recovery Coaches\*
- NSDUH, PDMP, ME data



# Opioid Crisis: One of the Major Challenges of Our Time

How can prevention professionals impact outcomes and affect change?



# Access to Naloxone

- As of July 15, 2017:
  - All 50 states and the District of Columbia have passed legislation designed to improve layperson naloxone access
  - 40 states and the District of Columbia have passed an overdose Good Samaritan law
- Adoption of a naloxone access law is associated with a 9-11% decrease in opioid-related deaths
- Good Samaritan laws were associated with a similar reduction
- Neither law was associated with an increase in non-medical use of prescription painkillers (D. Rees, et al., 2017)





# Preventionists: Key to Opioid Overdose Prevention

- Training of first responders
  - Overdose recognition
  - Use of naloxone antidote
- Public outreach and education
- Distribution of naloxone

# Innovative Approaches

- Pilot Study addressing the need for assertive mechanisms for linking individuals with OUDs to MAT
- Peer outreach workers referral of people w/OUDs to OTPs with rapid admission; high rates of retention (70% at 60 days)
- Peer Recovery Coaches in EDs to work with overdose victims
- Peer Recovery Coach follow up after ED discharge
- Peer professionals working as part of treatment teams to help people with recovery services and supports in community



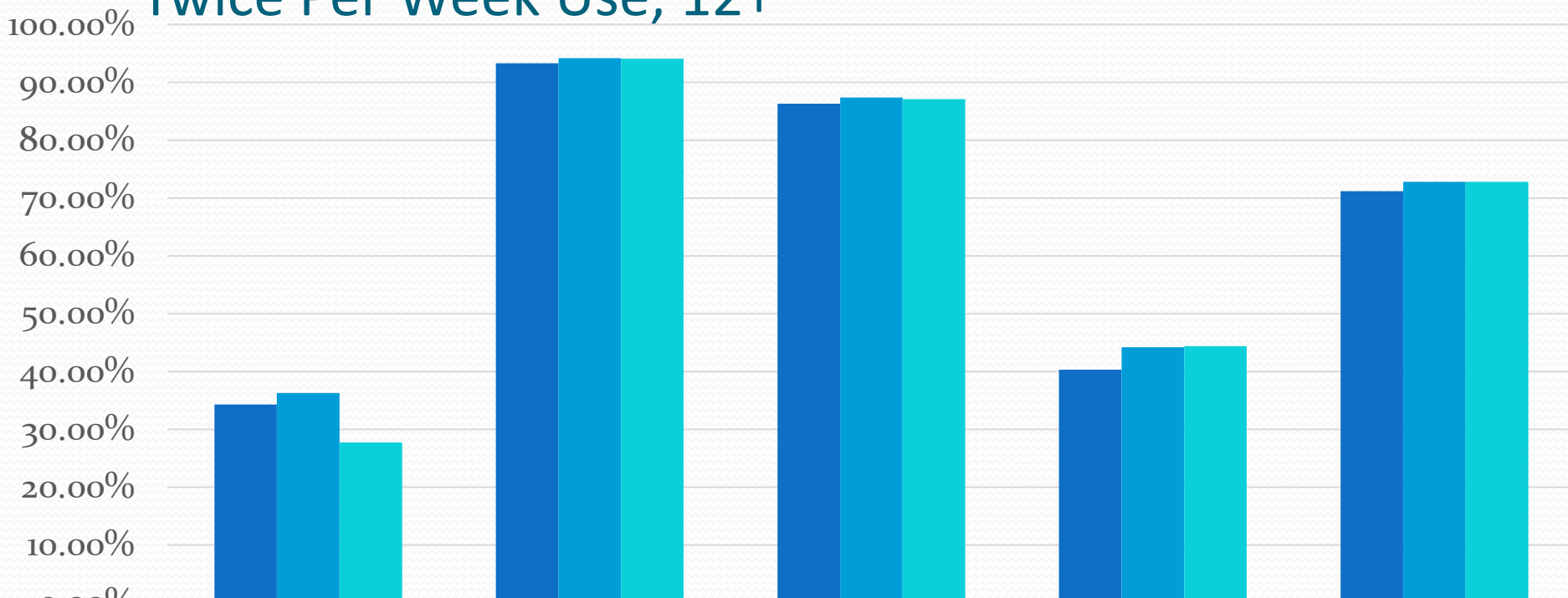
# Prevention: Opioids

- **Preventionists: Three Key Roles**
- Work in communities to develop and implement plans for prevention activities
- Activities in schools to educate youth about risks
- Outreach to families



# Marijuana: The Elephant in the Room

# 2016 NSDUH: Perceived Risk of Great Harm, Once or Twice Per Week Use, 12+

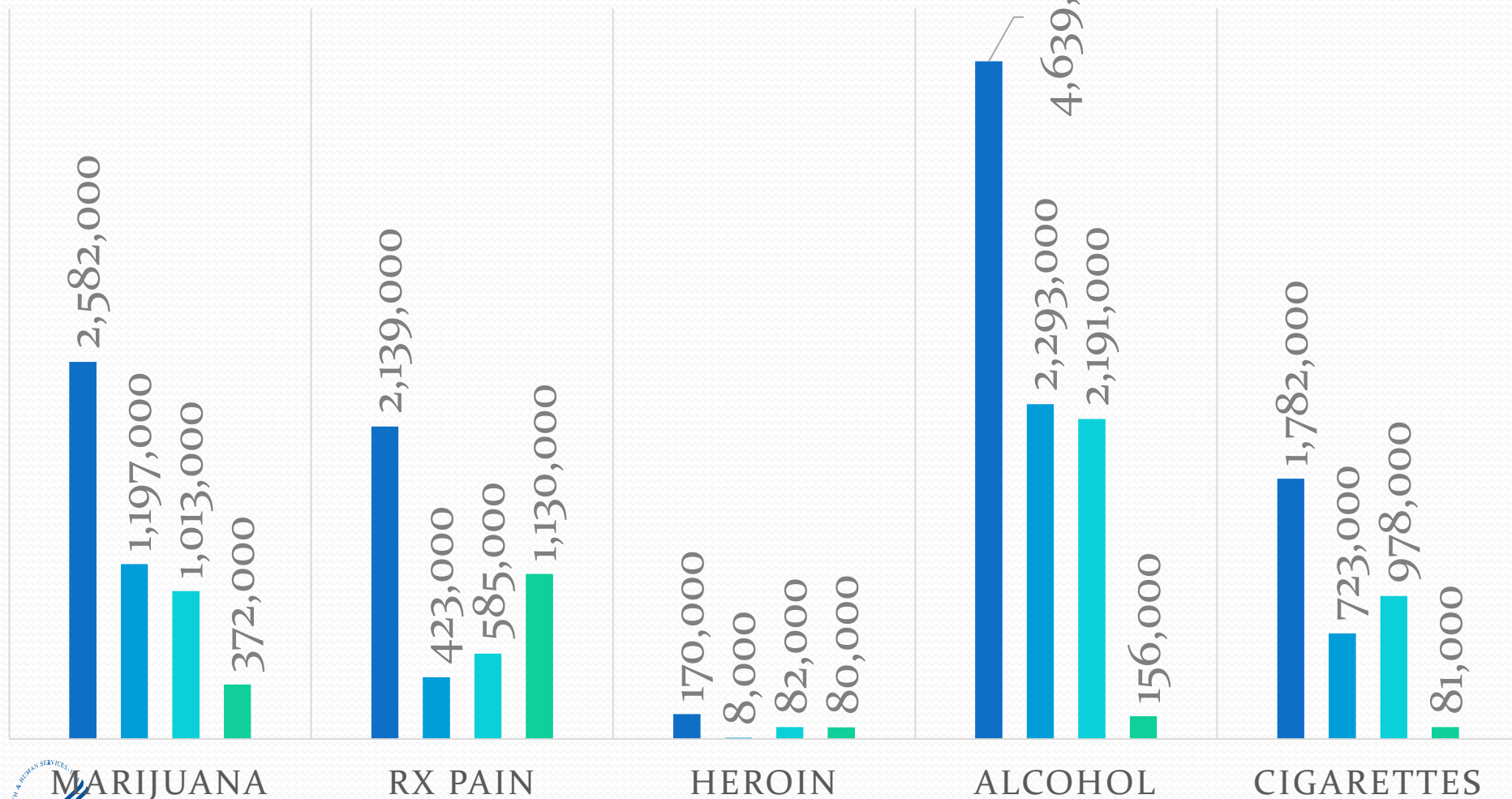


	Marijuana	Heroin	Cocaine	Alcohol (5+ Drinks)	Tobacco*
2014	34.30%	93.30%	86.30%	40.30%	71.20%
2015	36.30%	94.20%	87.40%	44.20%	72.80%
2016	27.70%	94.10%	87.10%	44.40%	72.80%

\* One or more packs per day

# 2016 NSDUH: Past Year Initiates, Age Group & Substance

■ 12+ ■ 12-17 yrs ■ 18-25 ■ 26+

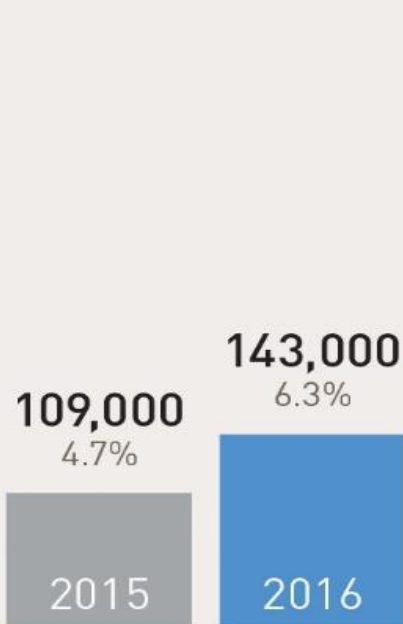


\* Initiation of misuse

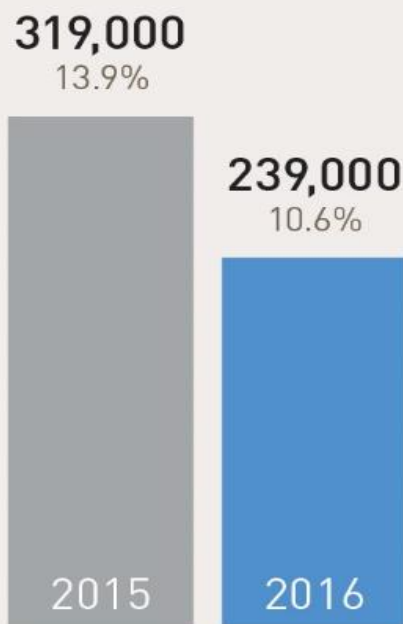
# Illicit Drug, Tobacco Product, and Alcohol Use in Past Month among Pregnant Women, Age 15-44, 2015-2016

2016 NSDUH

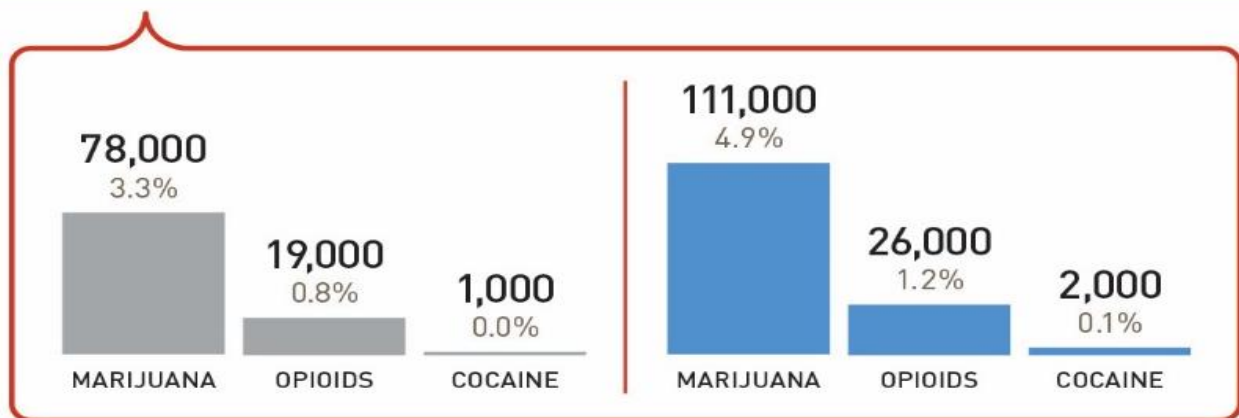
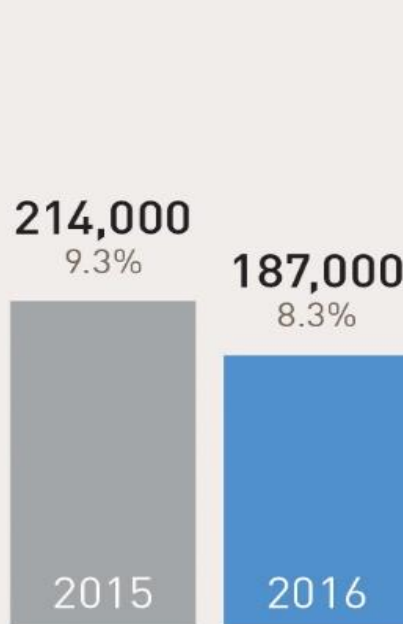
## ILLICIT DRUGS



## TOBACCO PRODUCTS



## ALCOHOL



# Marijuana Use: Special Impact on Children

- Marijuana exposure in utero: Lower birth weight; increased risk of behavioral problems
- Adverse outcomes linked to marijuana use by youth:
  - Poor school performance and increased drop out rates
  - Chronic use in adolescence has been linked to decline in IQ that doesn't recover with cessation (Meier et al. 2012)
  - Marijuana use in adolescence is associated with an increased risk for later psychotic disorder in adulthood (D'Souza, et al. 2016)
- Marijuana use linked to earlier onset of psychosis in youth known to be at risk for schizophrenia (McHugh, et al. 2017)





# Effects of Marijuana Use: Intoxication

- Intoxicating effects of marijuana related to THC:
  - Feeling 'high': pleasurable feelings that can lead to continued use and addiction (9% who try drug become addicted)
  - Distorts how the mind perceives the world; poor judgment and decision making (unprotected sex, driving while intoxicated)
  - Lack of balance and coordination (important to injury risk in activities such as driving, sports)
  - Difficulty with attention, concentration, and problem solving
  - Difficulty with learning and memory (immediate and recall)

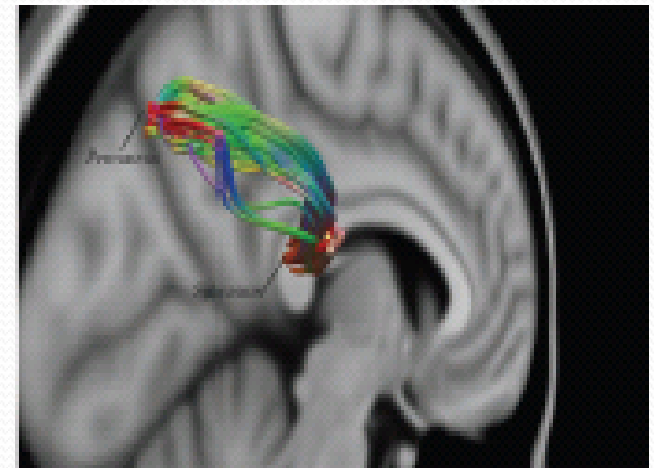
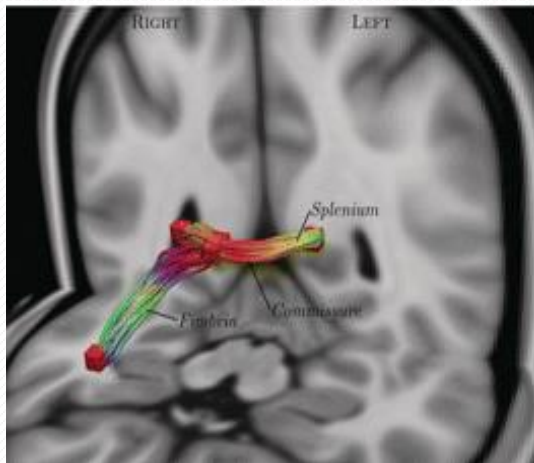
For review see: Crane et al. 2013

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# MULTIPLE STUDIES SHOW ALTERED BRAIN STRUCTURE AND FUNCTION IN YOUTH WHO REGULARLY USE MARIJUANA

Early (<18y) Marijuana Use Decreases Brain Fiber Connectivity



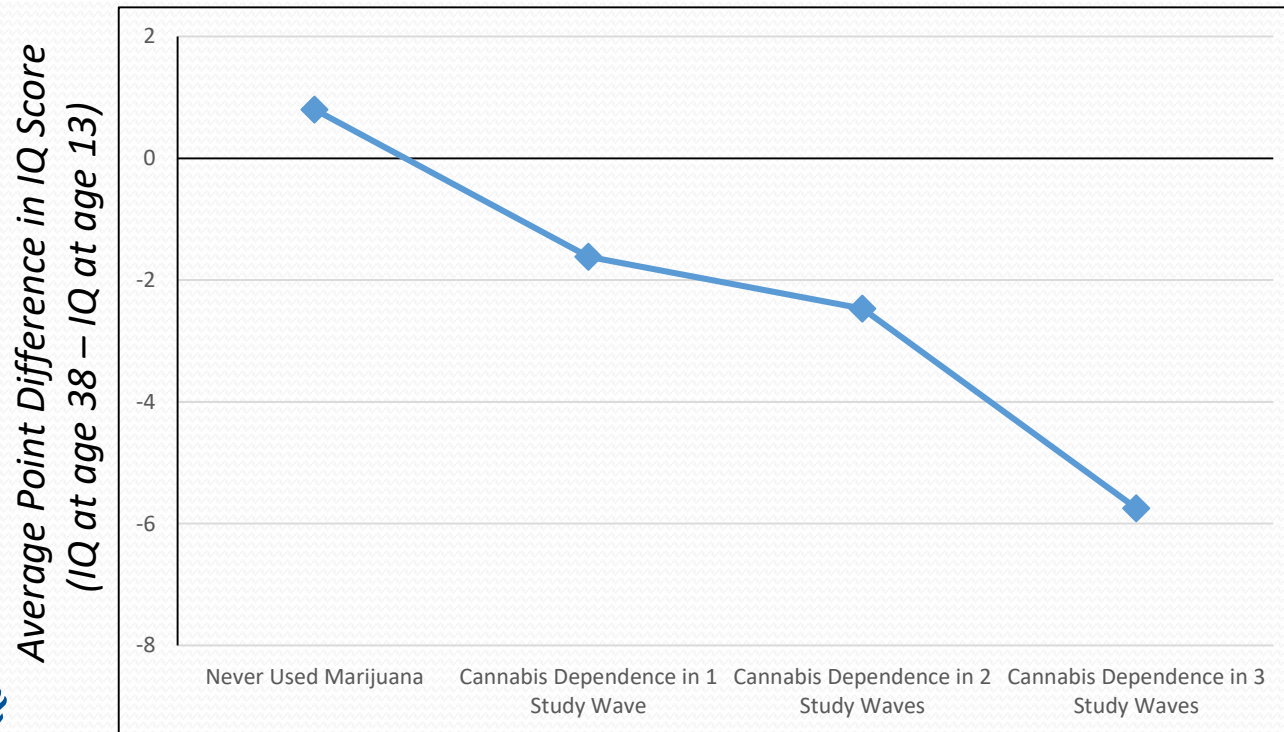
Decreases in brain fiber connectivity may help explain the cognitive impairment and vulnerability to certain mental health conditions seen among people with early onset and regular use.

Source: Zalesky et al Brain 2012

# Intelligence:

## PERSISTENT CANNABIS (MARIJUANA) USE DISORDER LINKED TO SIGNIFICANT IQ DROP BETWEEN CHILDHOOD AND MIDLIFE

- Followed 1,037 individuals from birth to age 38.
- Tested marijuana use and disorders at 18, 21, 26, 32 and 38 years of age.
- Tested for IQ at ages 13 and 38



All groups started with roughly equivalent IQ scores at age 13

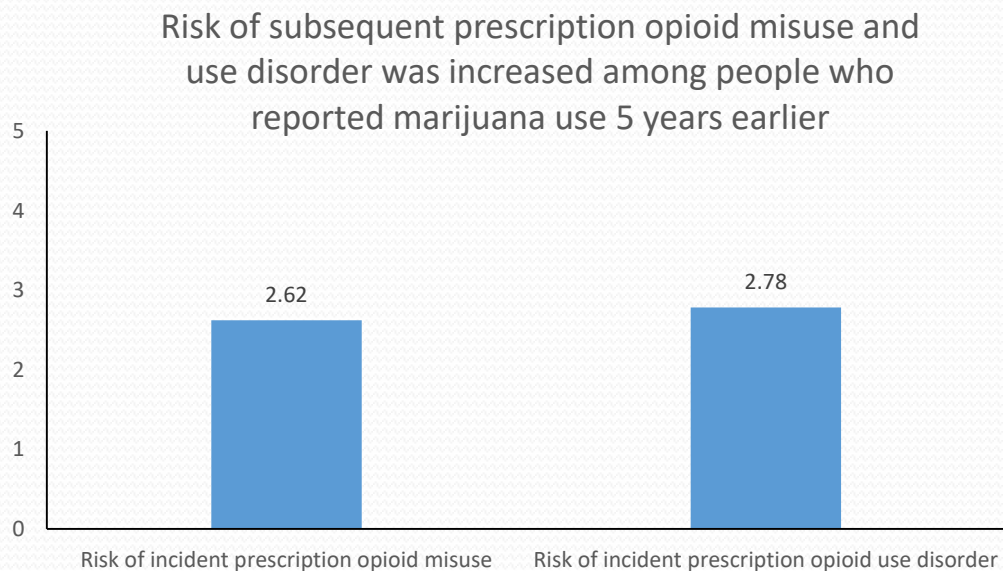
By age 38, those who were diagnosed with cannabis dependence in 3 study waves (the most persistent users of cannabis) had lost nearly 6 IQ points by the age of 38

There was a consistent dose-response relationship across the groups



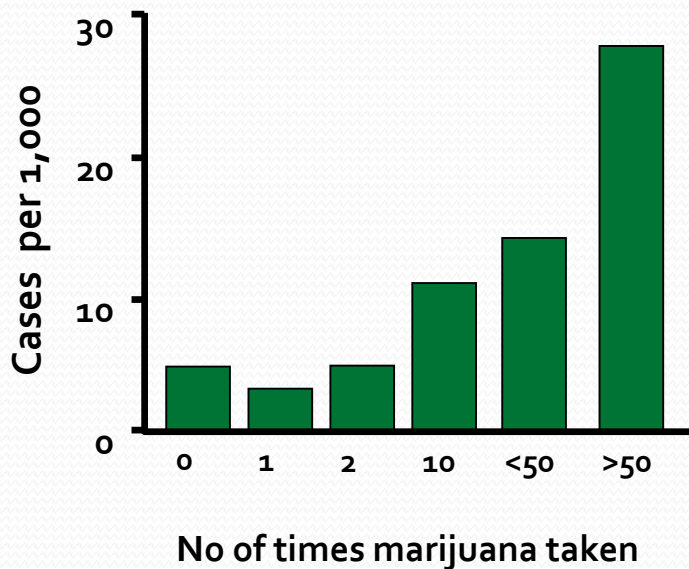
# Marijuana Use: Link to Prescription Pain Medication (Opioid) Abuse

Association of marijuana use with abuse of prescription pain medications and addiction (Olfson et al. 2017)

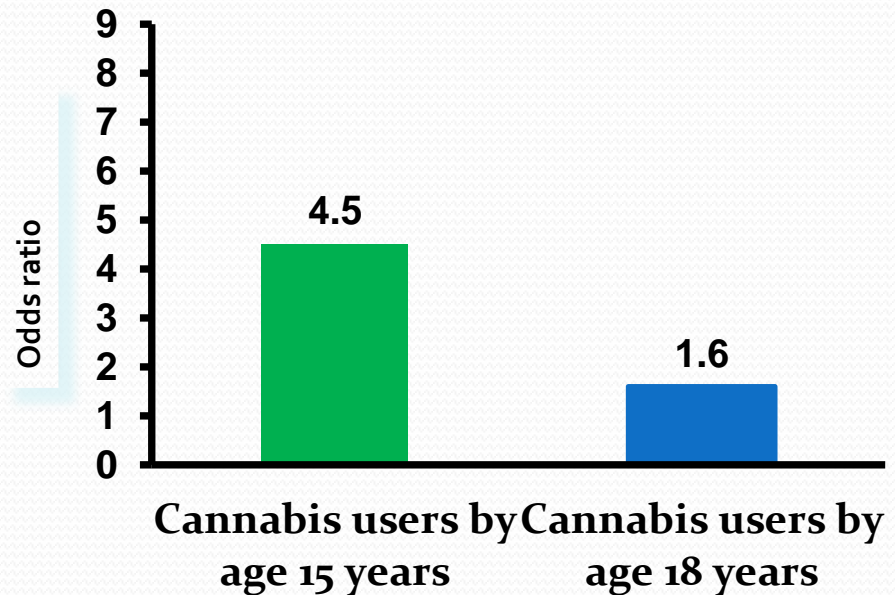


# Marijuana-Associated Psychosis

Risk of schizophrenia increases as marijuana use increases



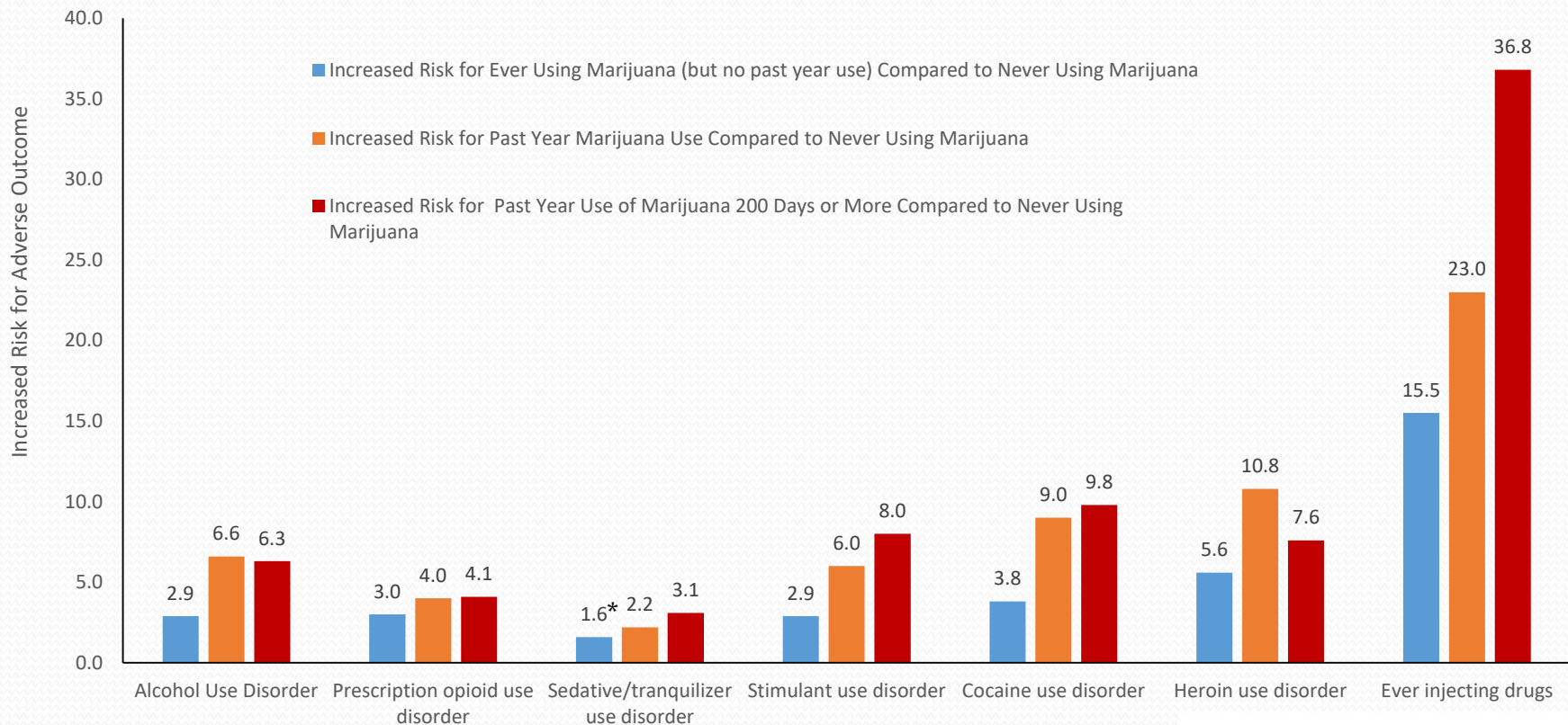
Higher risk of schizophrenia-like psychosis with younger age of first marijuana use



Source: Andréasson et al Lancet, 1987.

Source: Arseneault et al BMJ, 2002

# Drug Risks Associated with Marijuana Use Among U.S. Adults 18 and Older



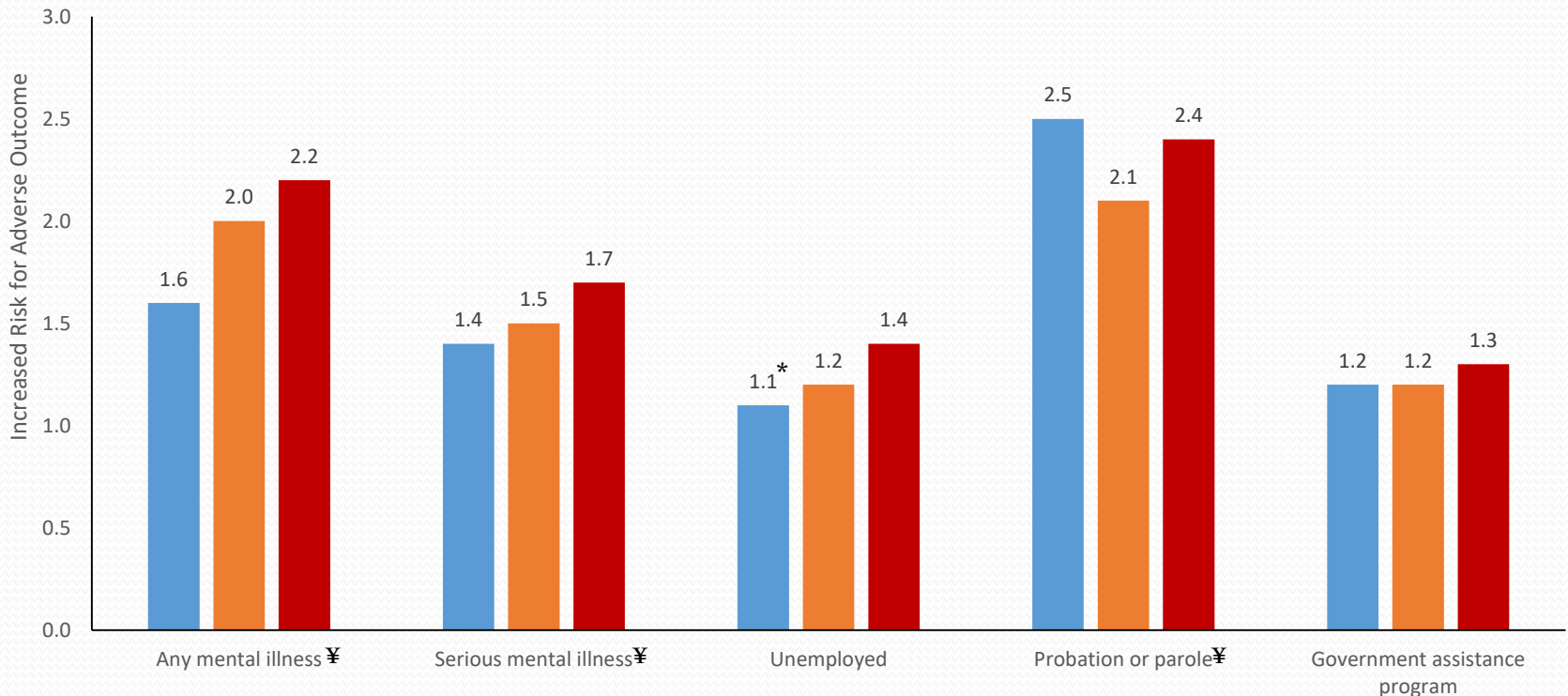
\* Result is not statistically significantly different

Source: Jones CM Analysis of 2015-2016 NSDUH Public Use File Data



# Mental Health and Social Risks of Marijuana Use Among U.S. Adults 18 and Older

- Increased Risk for Ever Using Marijuana (but no past year use) Compared to Never Using Marijuana
- Increased Risk for Past Year Marijuana Use Compared to Never Using Marijuana
- Increased Risk for Past Year Use of Marijuana 200 Days or More Compared to Never Using Marijuana



† past year

\* Result is not statistically significantly different

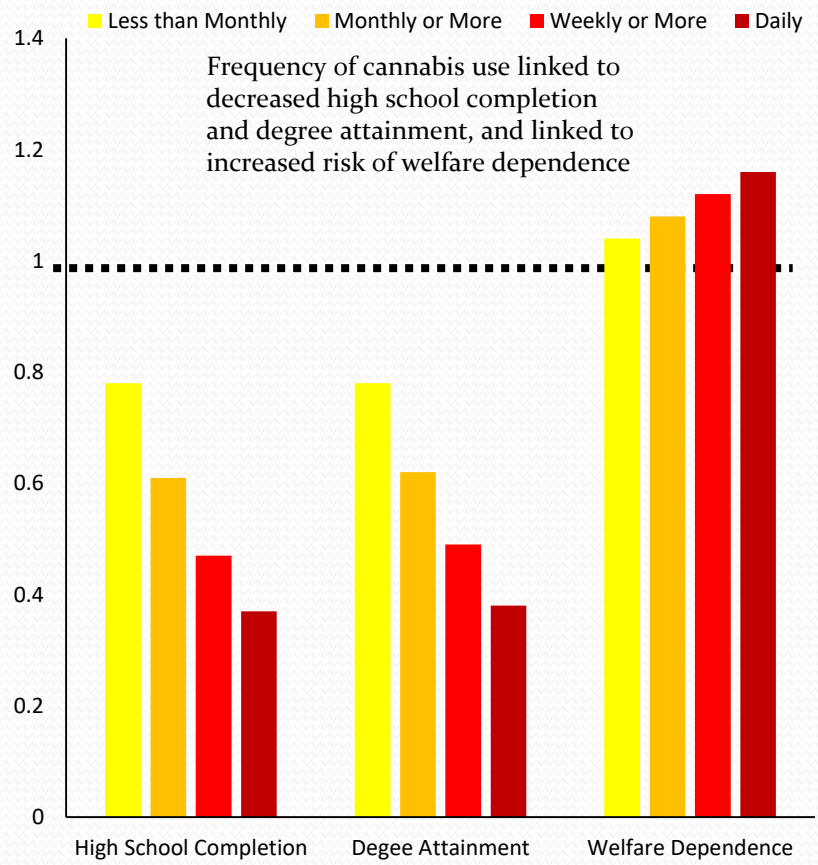
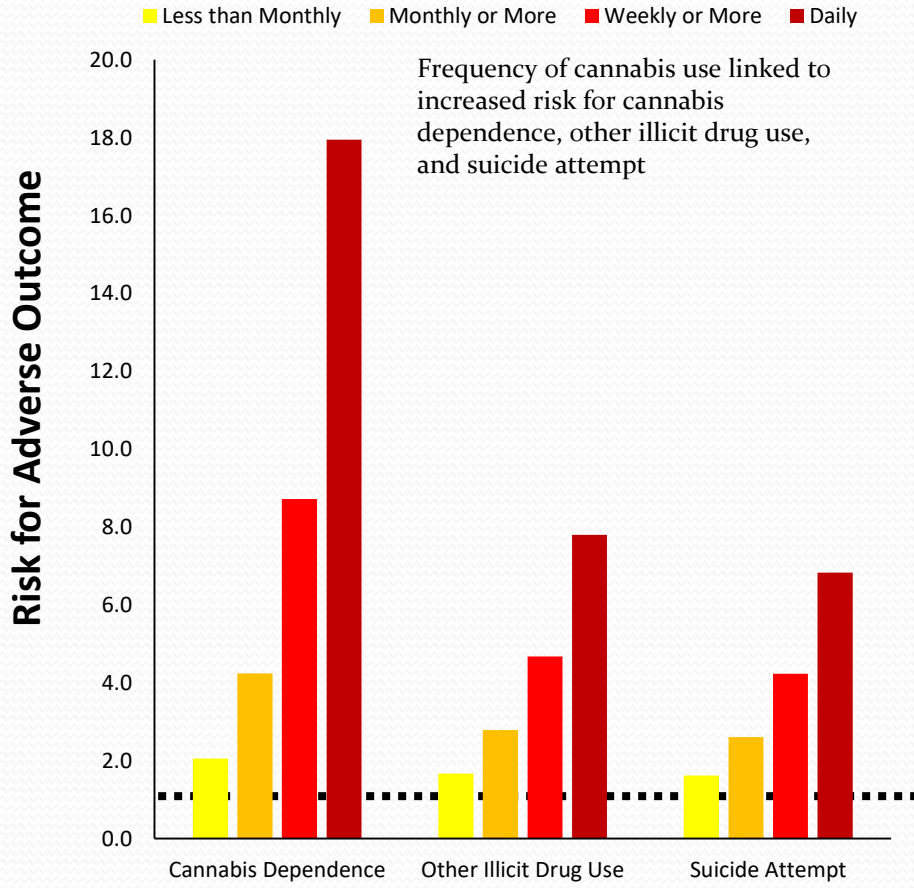
Source: Jones CM Analysis of 2015-2016 NSDUH Public Use File Data



# FREQUENCY OF CANNABIS (MARIJUANA) USE BEFORE AGE 17 YEARS AND

## *ADVERSE OUTCOMES* (30 YEARS AGE) (N=2500-3700)

**Consistent and dose-response association were found between frequency of adolescent cannabis use and adverse outcomes**



Source: Silins E et al., The Lancet September 2014



# SAMHSA Resources



# CAPT Resources



- On-line training portal
- Fact sheets, articles, issue briefs
- Toolkits
- Media campaign development
- Grantee success stories
- Data to guide efforts
- Webinars
- Guide to naloxone distribution efforts



[SAMHSA.gov/capt](http://SAMHSA.gov/capt)



# *Prevention Conversations Videos*

- *Talking About Overdose with People Who Use Opioids*
- *Getting Naloxone to Those in Greatest Need: Lessons from Massachusetts*
- *Lessons from South Carolina: Engaging Law Enforcement in Naloxone Distribution*
- *Lessons from South Carolina: Tracking Naloxone Distribution*



To watch these and other videos, click on this button on the right rail of the CAPT web area: <https://www.samhsa.gov/capt>

# SAMHSA Center for Substance Abuse Prevention Grants

- Drug Free Communities
- First Responders - Comprehensive Addiction and Recovery Act Cooperative Agreement
- Improving Access to Overdose Treatment
- Community-Based Coalition Enhancement Grants To Address Local Drug Crises
- Opioid State Targeted Response (STR) Supplement



# Prevention Professionals: Key Partners

- Let's call out the risks of marijuana
- Push prevention efforts for opioids: you are saving lives!
- Stay knowledgeable about current drug use and treatment trends in your communities
- Link people to the services they and their families need
- Utilize SAMHSA resources to create strong programs



**Thank you!**  
**Questions?**

