

Substance Use Issues and Serious Mental Illness in the United States: An Update from SAMHSA

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Mental Health Association of Essex and
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October 4, 2019



SAMHSA
Substance Abuse and Mental Health
Services Administration

Overview

- Epidemiology of substance use and mental disorders in the United States
 - High rates of co-occurring disorders
- Status of Opioid Epidemic
- Marijuana
- Vaping
- Serious Mental Illness
- SAMHSA resources

Mental Illness and Substance Use Disorders in America

PAST YEAR, 2018 NSDUH, 18+

Among those with a substance use disorder:

- 3 IN 8 (38.3% or 7.4M)** struggled with illicit drugs
- 3 IN 4 (74.5% or 14.4M)** struggled with alcohol use
- 1 IN 8 (12.9% or 2.5M)** struggled with illicit drugs and alcohol

Among those with a mental illness:
1 IN 4 (23.9% or 11.4M) had a serious mental illness

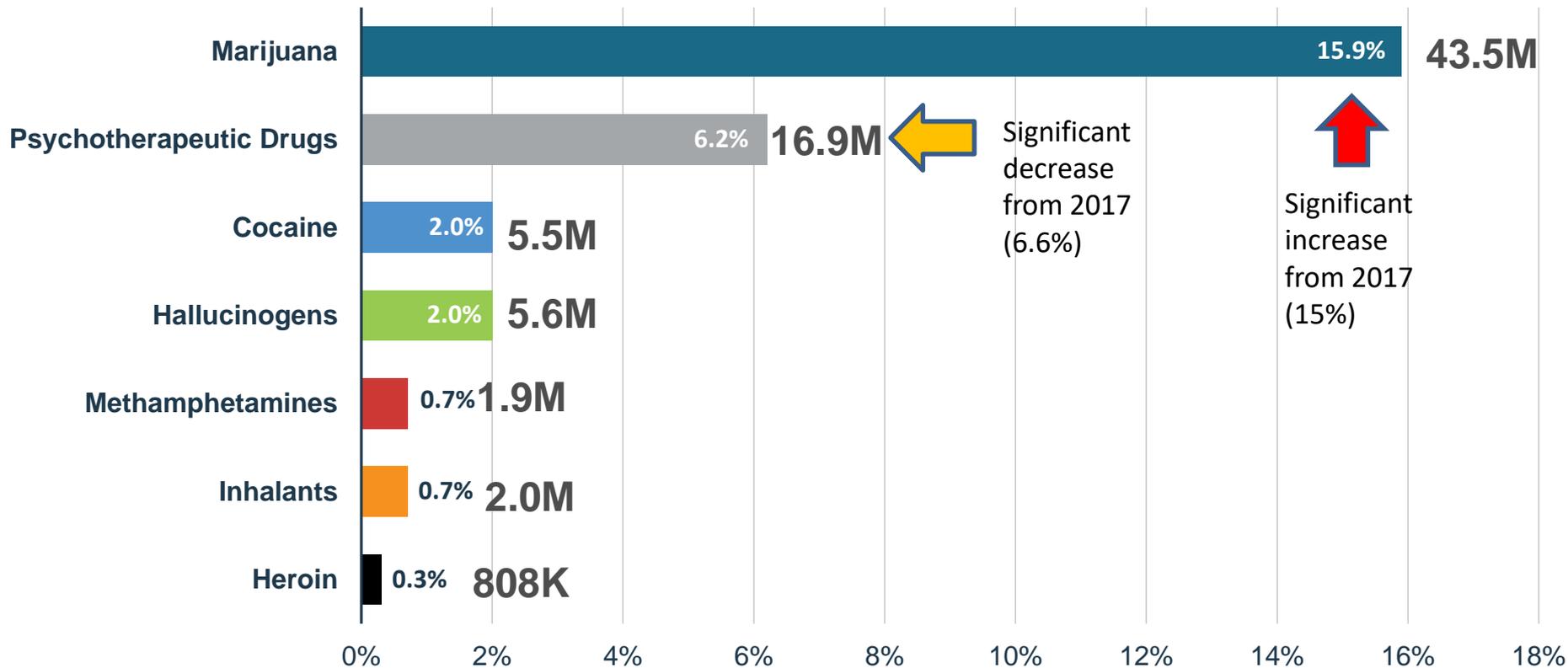
7.8%
(19.3 MILLION)
People aged 18
or older had a
substance use
disorder (SUD)

3.7%
(9.2 MILLION)
People 18+ had
BOTH an SUD and a
mental illness

19.1%
(47.6 MILLION)
People aged 18
or older had a
mental illness

In 2018, **57.8M** Americans had a mental and/or substance use disorder.

Illicit Drug Use: Marijuana Most Used Drug



THE OPIOIDS CRISIS

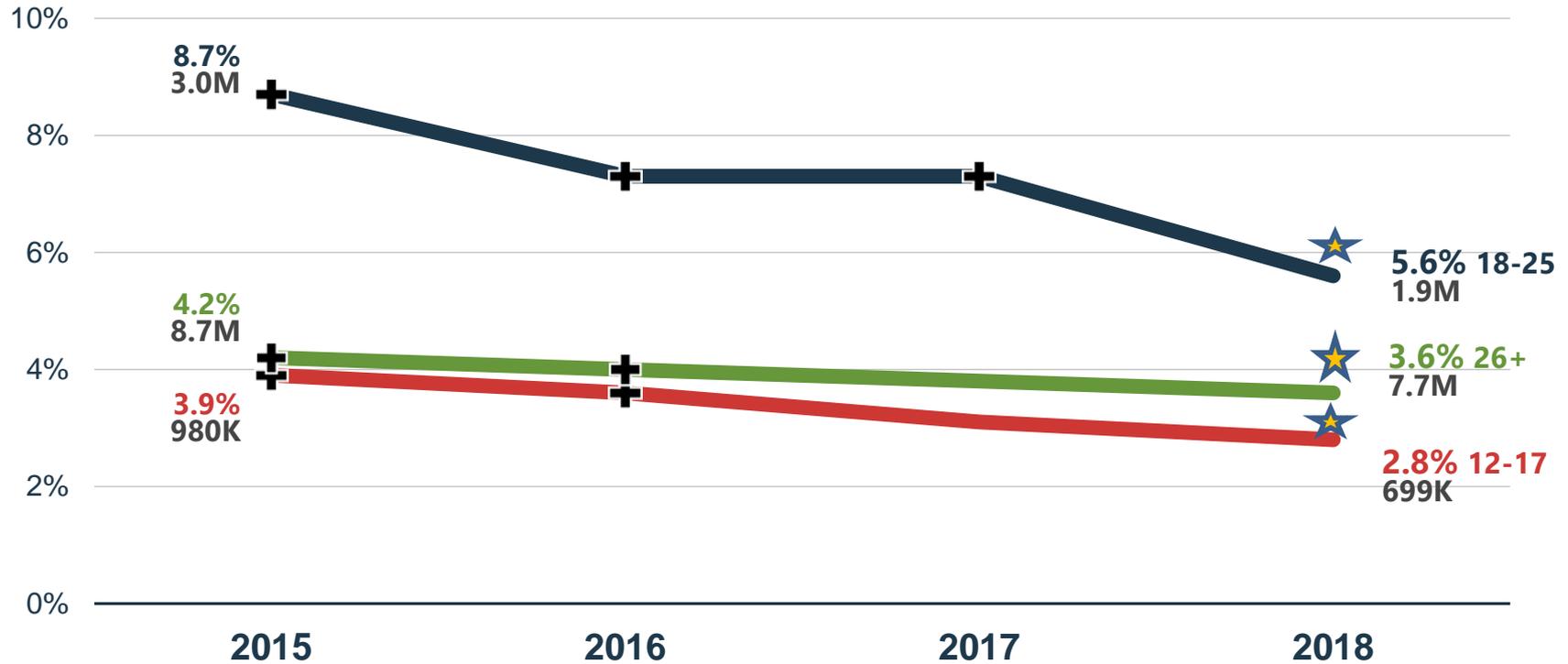
Status and Strategy

Opioids Crisis: Overview

- State Targeted Response to Opioids implemented in 2017 as part of Cures Act
- \$1B added in 2018 to opioids prevention, treatment and recovery services (State Opioid Response) and \$6 overall to HHS to help American communities combat the crisis
- SAMHSA has provided funding to the states and through discretionary grant programs to address opioids issues and has provided ongoing guidance to states on use of funding for the allowed purposes
- Opioid misuser numbers have dropped from 11.4M in 2017 to 10.3M in 2018
- Opioid Use Disorder dropped from 2.1M in 2017 to 2.0M in 2018
- Overdose deaths declined by 2.8% in 2018 (47,608) from 2017 (48,958)
- Fentanyl and potent synthetic opioids remain the major source of toxicity and death.
- There is still much to be done, but progress is being made.

Opioid Misuse

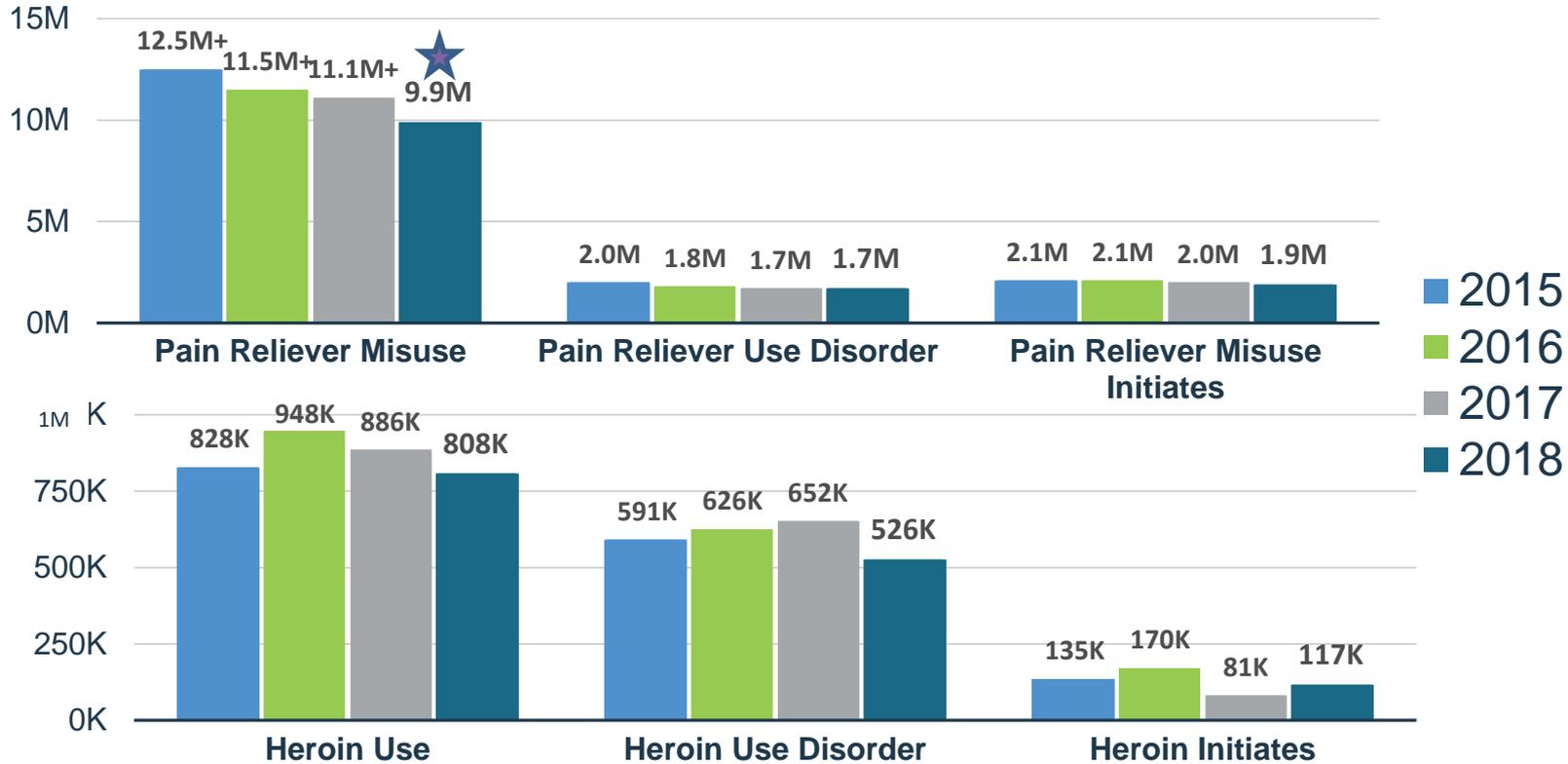
PAST YEAR, 2015-2018 NSDUH, 12+



+ Difference between this estimate and the 2018 estimate is statistically significant at the .05 level.

Prescription Pain Reliever Misuse and Heroin Use

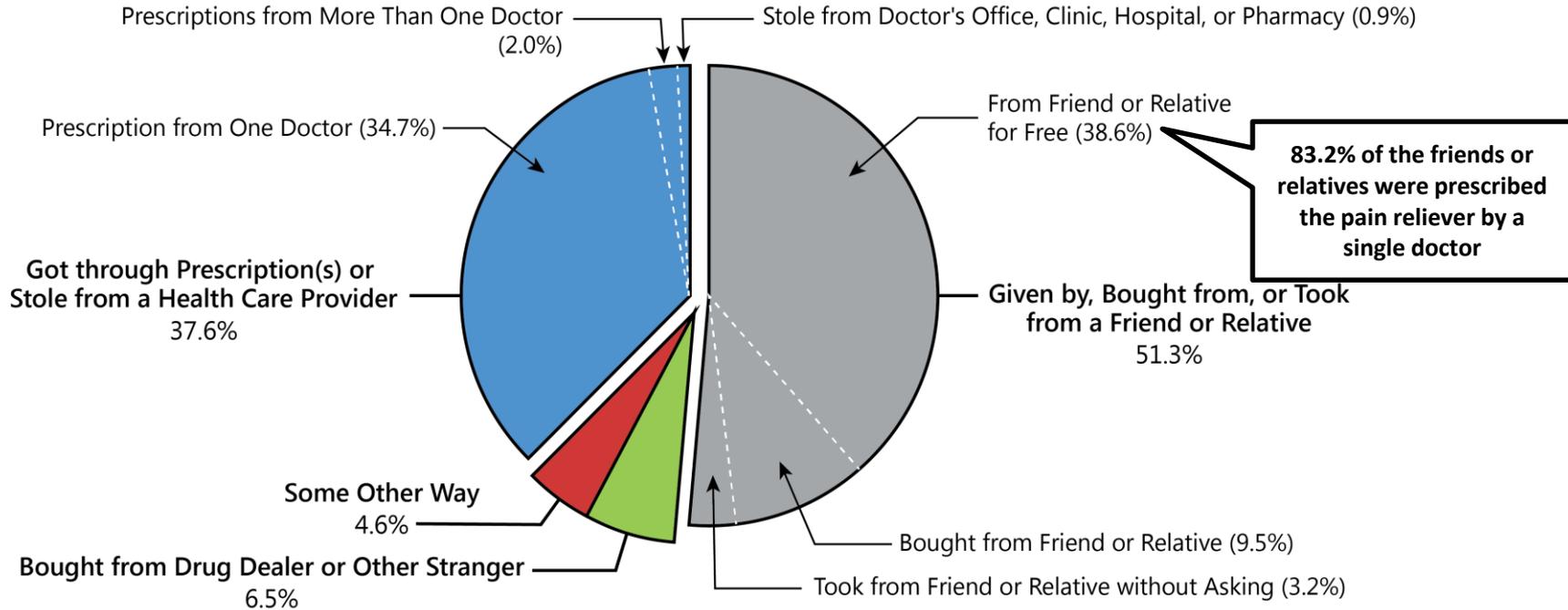
PAST YEAR, 2015-2018 NSDUH, 12+



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Sources Where Pain Relievers Were Obtained for Most Recent Misuse among People Who Misused Prescription Pain Relievers

PAST YEAR, 2018 NSDUH, 12+

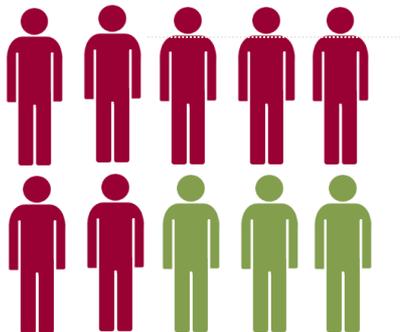


9.9 Million People Aged 12 or Older Who Misused Prescription Pain Relievers in the Past Year

Nonmedical Use of Prescription Opioids Significant Risk Factor for Heroin Use



3 out of 4 people
who used heroin in the
past year misused
prescription opioids first



7 out of 10 people
who used heroin in the
past year also misused
prescription opioids in the
past year

2018: 2 million with opioid use disorder

Synthetic Opioid Deaths Closely Linked to Illicit Fentanyl Supply

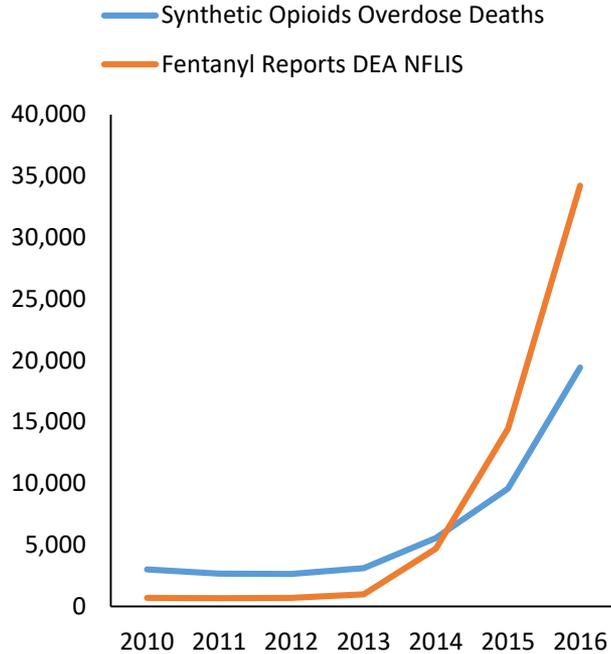
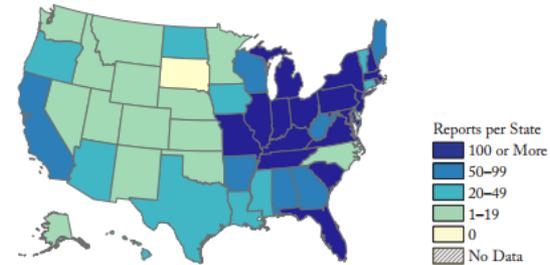


Figure 3 Fentanyl reports in NFLIS, by State, 2001



Figure 4 Fentanyl reports in NFLIS, by State, 2015

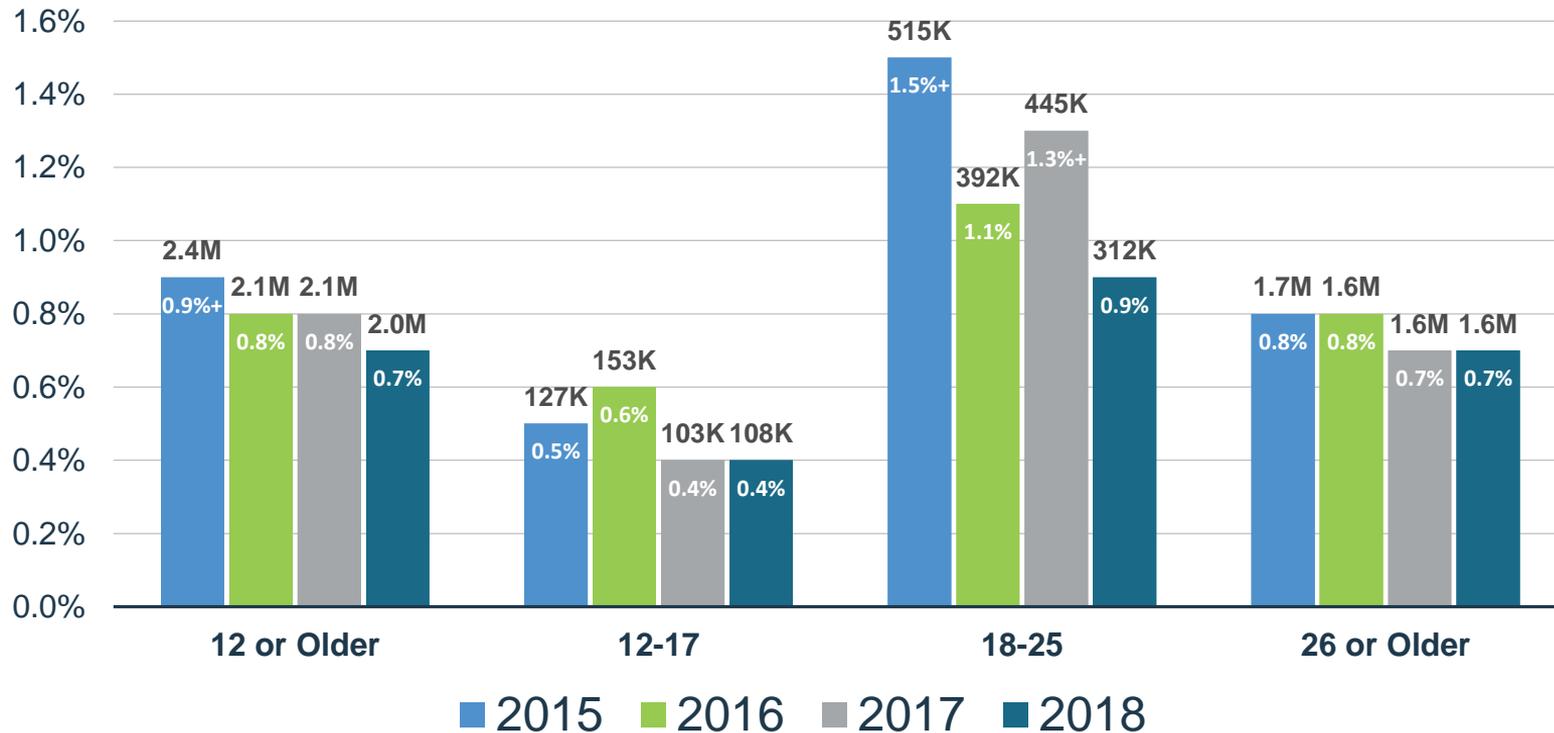


Known or suspected exposure to fentanyl in past year (n = 121)

| Behavior or experience | APR | 95% CI | p |
|---------------------------|-------------|------------------|--------------|
| Regular heroin use | 4.07 | 1.24-13.3 | 0.020 |

Opioid Use Disorder

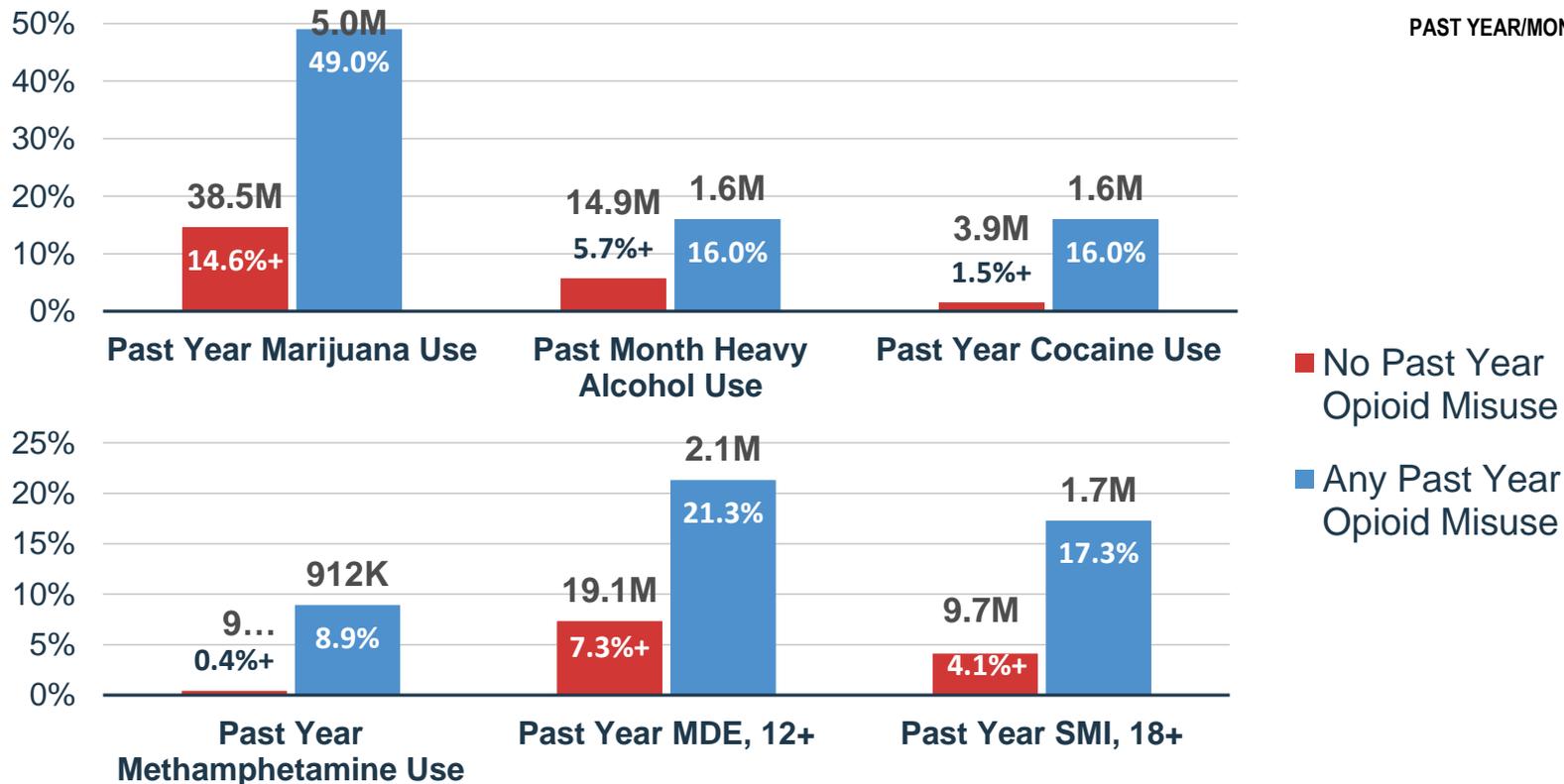
PAST YEAR, 2015-2018 NSDUH, 12+



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Opioid Misuse Related to Other Substance Use, MDE and SMI

PAST YEAR/MONTH, 2018 NSDUH, 12+



+ Difference between this estimate and the estimate for people with past year opioid misuse is statistically significant at the .05 level.

SAMHSA Response: Combatting the Opioids Crisis

STR/SOR grants to states: Prevention, Treatment and Recovery Services for OUD *FY 19: 1.5 B*

- 50 M set-aside for tribes/15% set aside for 10 hardest hit states
- **Established STR Technical Assistance and Training Program: national program that places teams with clinical expertise in OUD on the ground in every state; training available on request, assists with implementation**

Naloxone distribution and first responder training *FY 19: \$49M*

MAT PDOA program to assist with OUD pharmacotherapy implementation *FY 19: \$89M*

PPW program: residential and outpatient services *FY 19: \$29.9M*

High Quality, Targeted Resources:

- PPW Factsheets, Healthy Pregnancy/Healthy Baby
- TIP 63
- Finding Quality Treatment
- MAT in Criminal Justice Settings

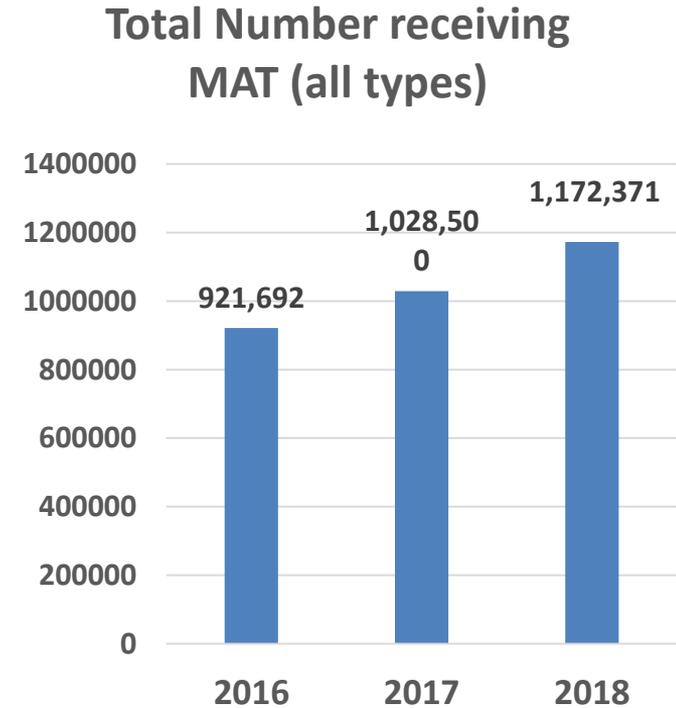
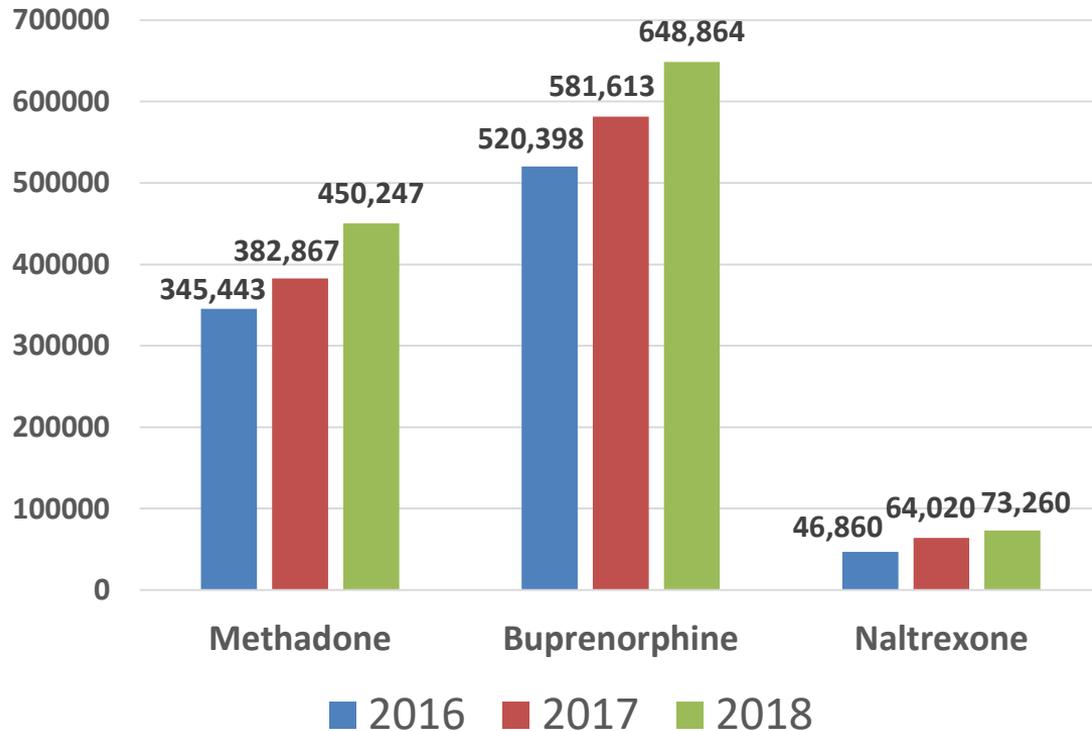
Reinstatement of Drug Abuse Warning Network (DAWN) *\$10M*

Collaboration with USDA to establish recovery housing in rural areas

SAMHSA Response: Combatting the Opioids Crisis

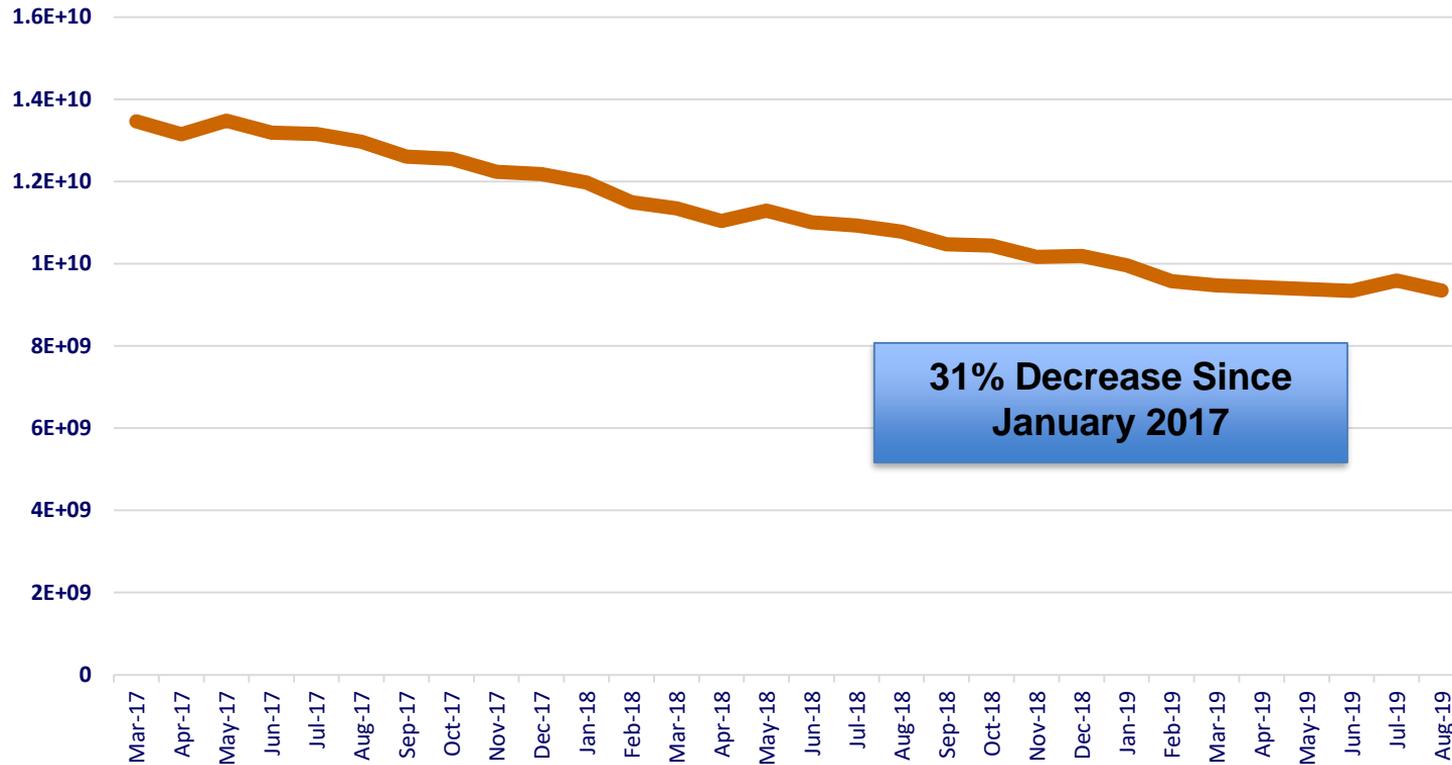
- CJ programs with MAT; ***FY 19: \$89M Drug Courts: Adult, Juvenile, Family, Offender Re-entry***
- Guidance on Recovery Housing
- Recovery Coaches training and placement in communities/EDs
- Pain management: Support dissemination of CDC clinical practice guidelines, BZD/opioids guidance, PCSS MAT training, co-occurring disorders: mental disorders, suicide prevention
- Practitioner training programs: ATTCs, MHTTCs, Prevention TTCs, PCSSMAT, PCSS Universities
- **DATA waiver trainings:** over 62,000 trained, >10,000 NP/PAs to expand access to OUD treatment
- **Outcomes Data: Diagnosis, engagement/retention in treatment; reduced ED use, reduced hospitalizations, reduced CJ interactions, medication treatment/type of medication/indication**
- Block grants to states ***FY 19: \$1.86B***

Treatment Gains: Number of Individuals Receiving Pharmacotherapy for Opioid Use Disorder (MAT)



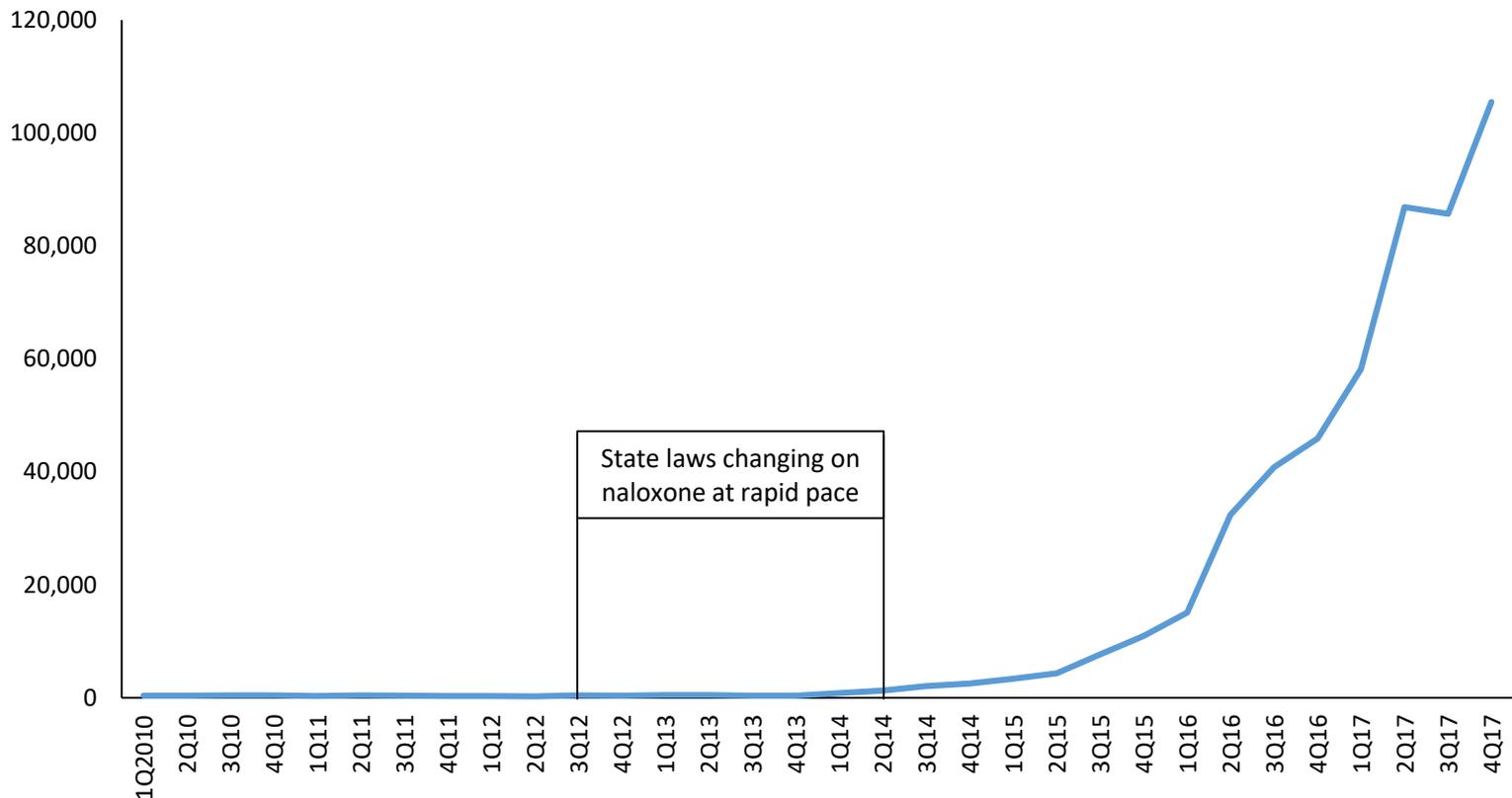
OPIOID MORPHINE MILLIGRAM EQUIVALENTS (MME) PRESCRIBED PER MONTH (U.S.)

Rolling 3-month Average



Source: IQVIA National Prescription Audit.
Data presented for the retail and mail channels only

Signs of Progress: Dramatic Increases in Naloxone Dispensing from U.S. Pharmacies



Source: IQVIA National Prescription Audit, data extracted 2016-2018

Marijuana

The Need to Educate the Public About
Health Risks Associated with Use

The Issue

Marijuana is rapidly becoming more widely available in the U.S.: 33 states: allow medical marijuana use; 10 states plus DC have legalized recreational use



Huge and profitable industry that markets heavily with health claims that have little to no basis and which have had virtually no counter arguments put forward until the present time

Numerous forms: smoked, edibles, oil for vaping, lotions, transdermal patches

THC content has greatly increased in recent years (4% in 1990s; 12% in 2014);
MJ extracts: 24-76% THC



Risks and Adverse Outcomes

- **Downplayed by industry; ignored by states**
 - Low birth weight
 - Pulmonary symptoms
 - MVAs
 - Cognitive impairment
 - Poor performance in school and at work
 - Addiction
 - Risk of adverse outcomes to our children and young adults

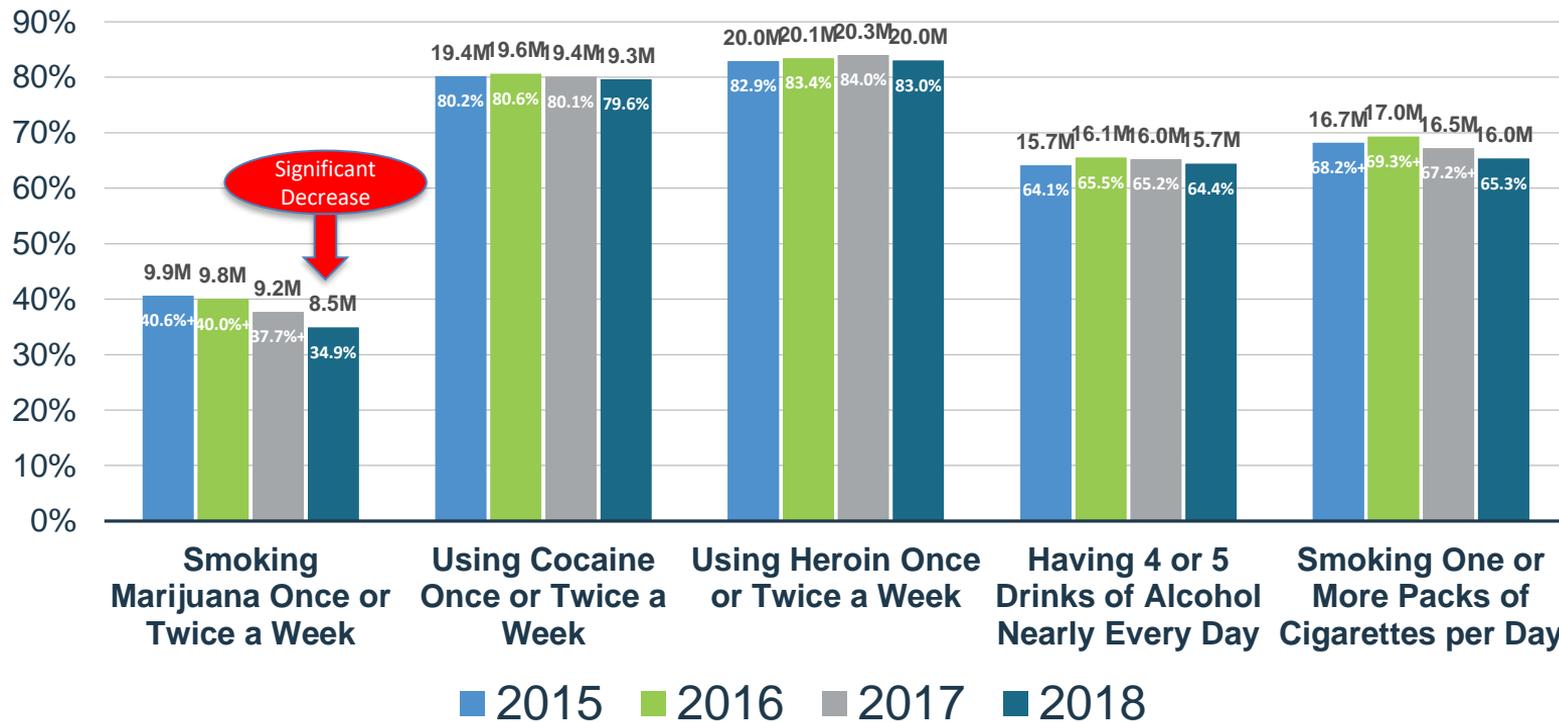
What Happens as State Laws Liberalize?

| Marijuana Legalization Status | Range of Past Year Marijuana Use (2015-16) |
|-------------------------------|--|
| No Legalization | 9-13% |
| Medical Marijuana only | 11-21.8% |
| Medical and Recreational Use | 13-25% |

Source: National Survey on Drug Use and Health, 2015-16

Perceived Great Risk from Substance Use among Youth

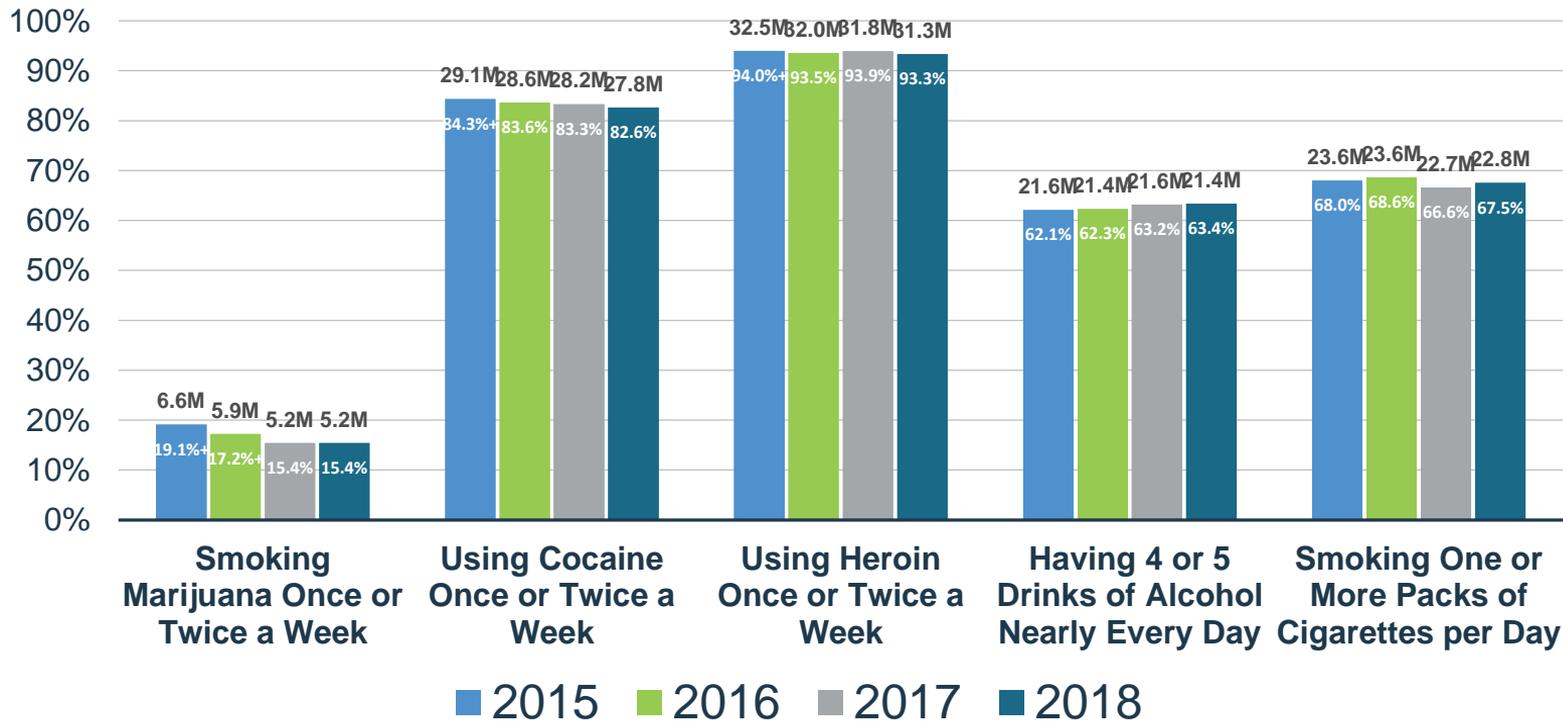
PAST YEAR, 2015-2018 NSDUH, 12-17



+ Difference between this estimate and the 2018 estimate is statistically significant at the .05 level.

Perceived Great Risk from Substance Use among Young Adults

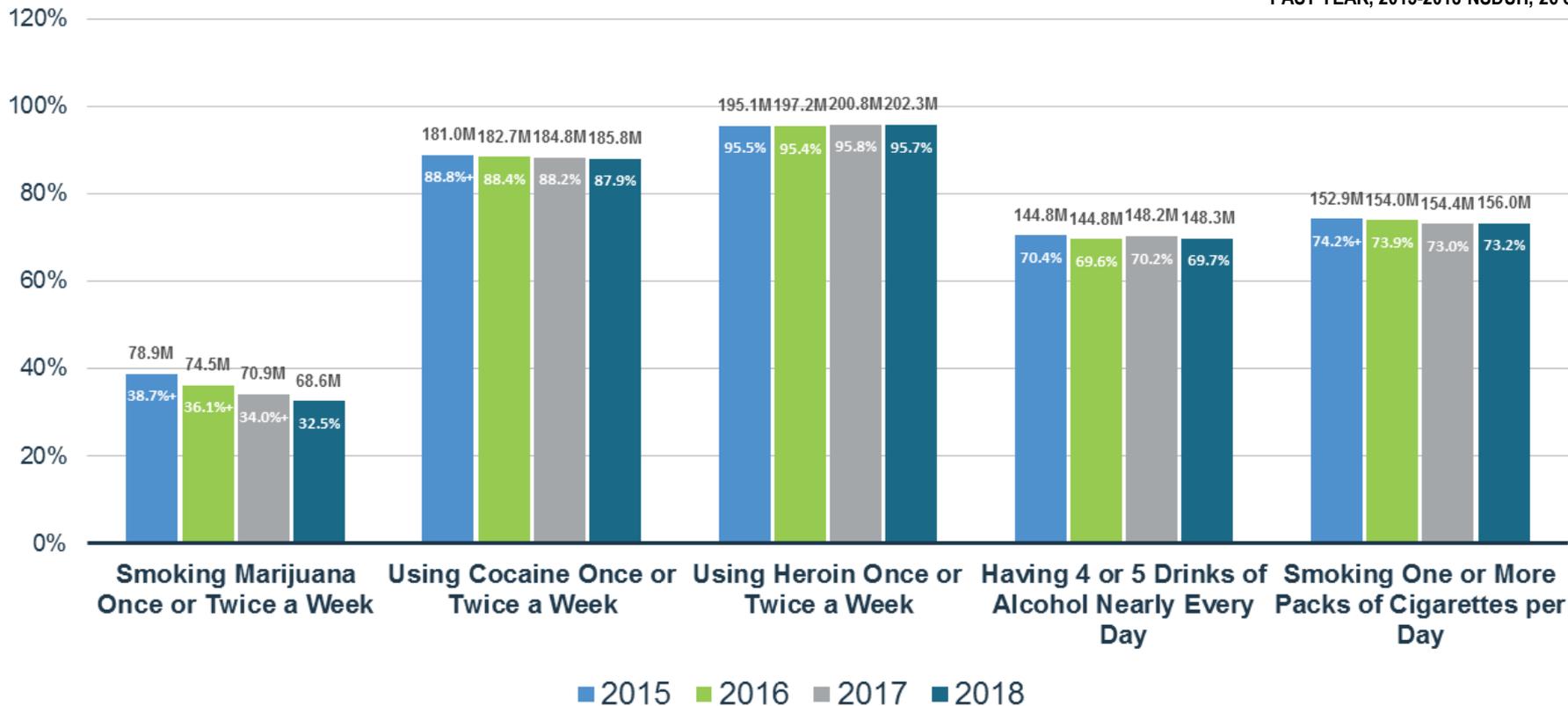
PAST YEAR, 2015-2018 NSDUH, 18-25



+ Difference between this estimate and the 2018 estimate is statistically significant at the .05 level.

Perceived Great Risk from Substance Use among Adults Aged 26+

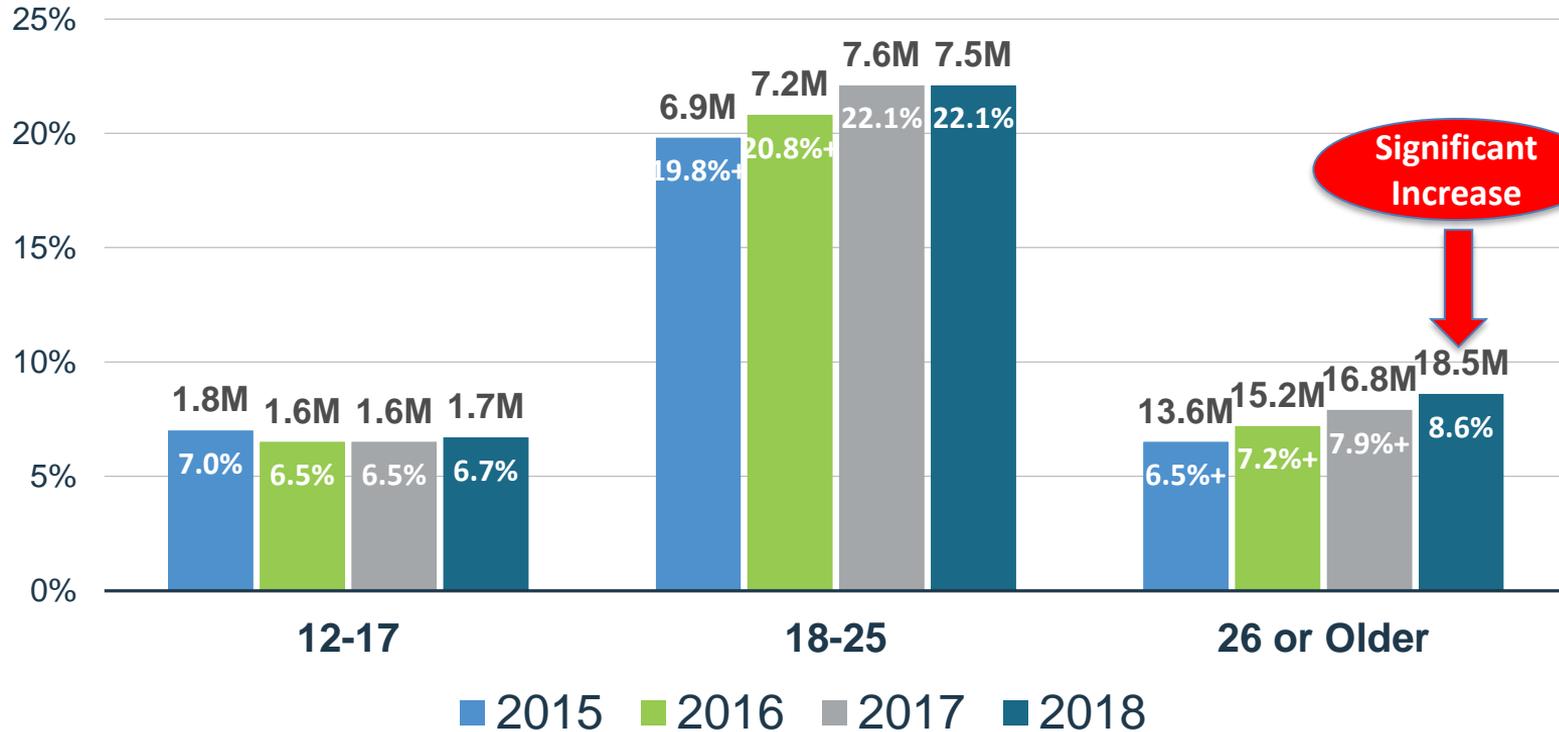
PAST YEAR, 2015-2018 NSDUH, 26 or Older



+ Difference between this estimate and the 2018 estimate is statistically significant at the .05 level.

Marijuana Use

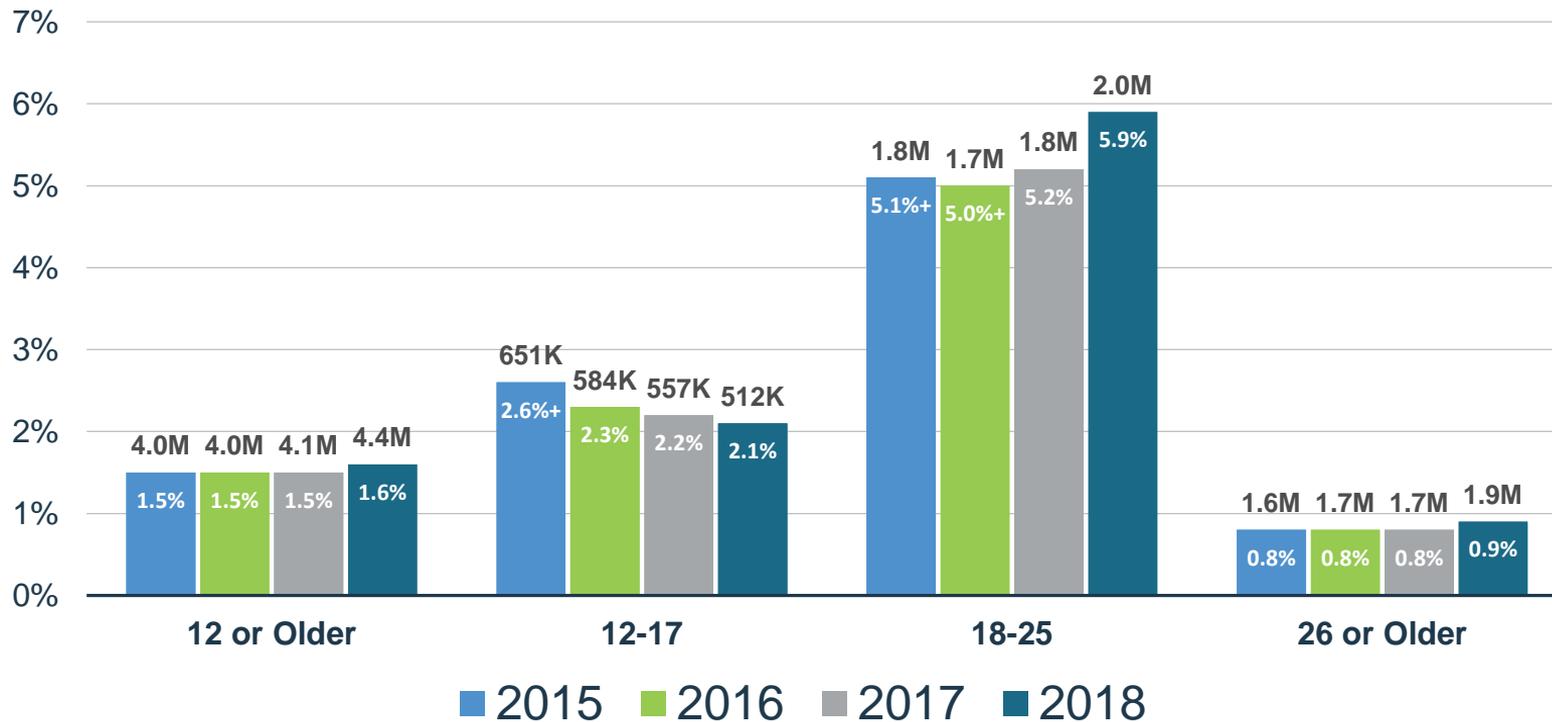
PAST MONTH, 2015-2018 NSDUH, 12+



+ Difference between this estimate and the 2018 estimate is statistically significant at the .05 level.

Marijuana Use Disorder

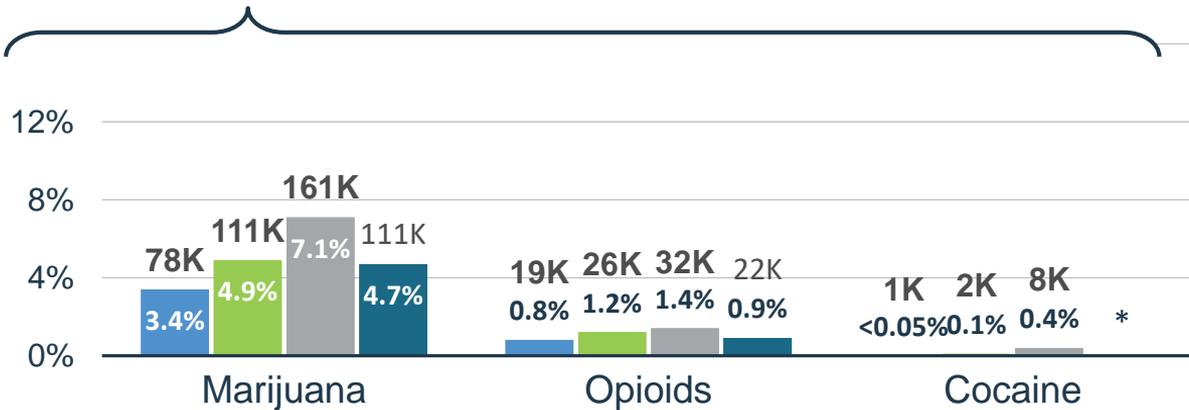
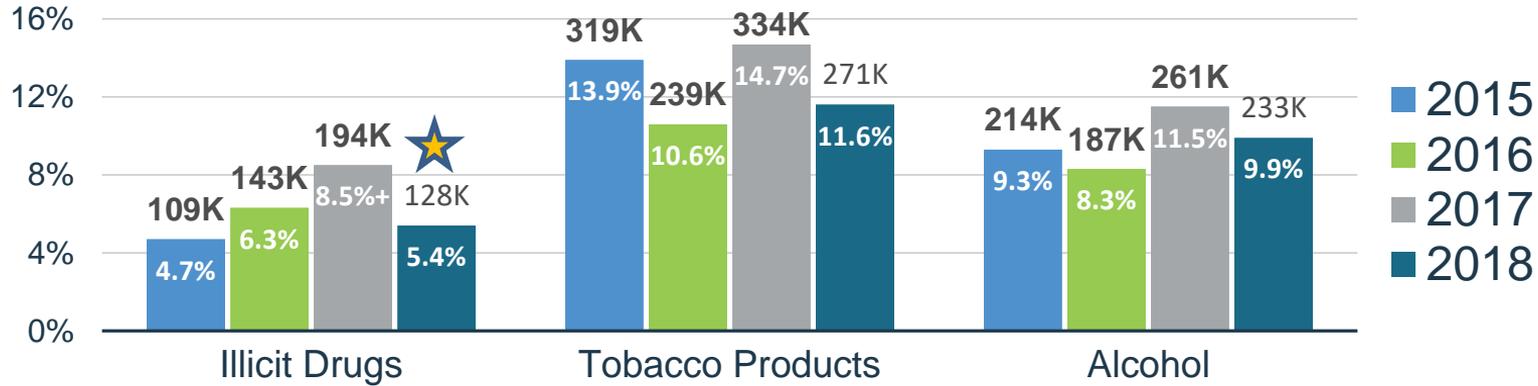
PAST YEAR, 2015-2018 NSDUH, 12+



+ Difference between this estimate and the 2018 estimate is statistically significant at the .05 level.

Past Month Substance Use among Pregnant Women

PAST MONTH, 2015-2018 NSDUH, 15-44



Marijuana use in Pregnancy:

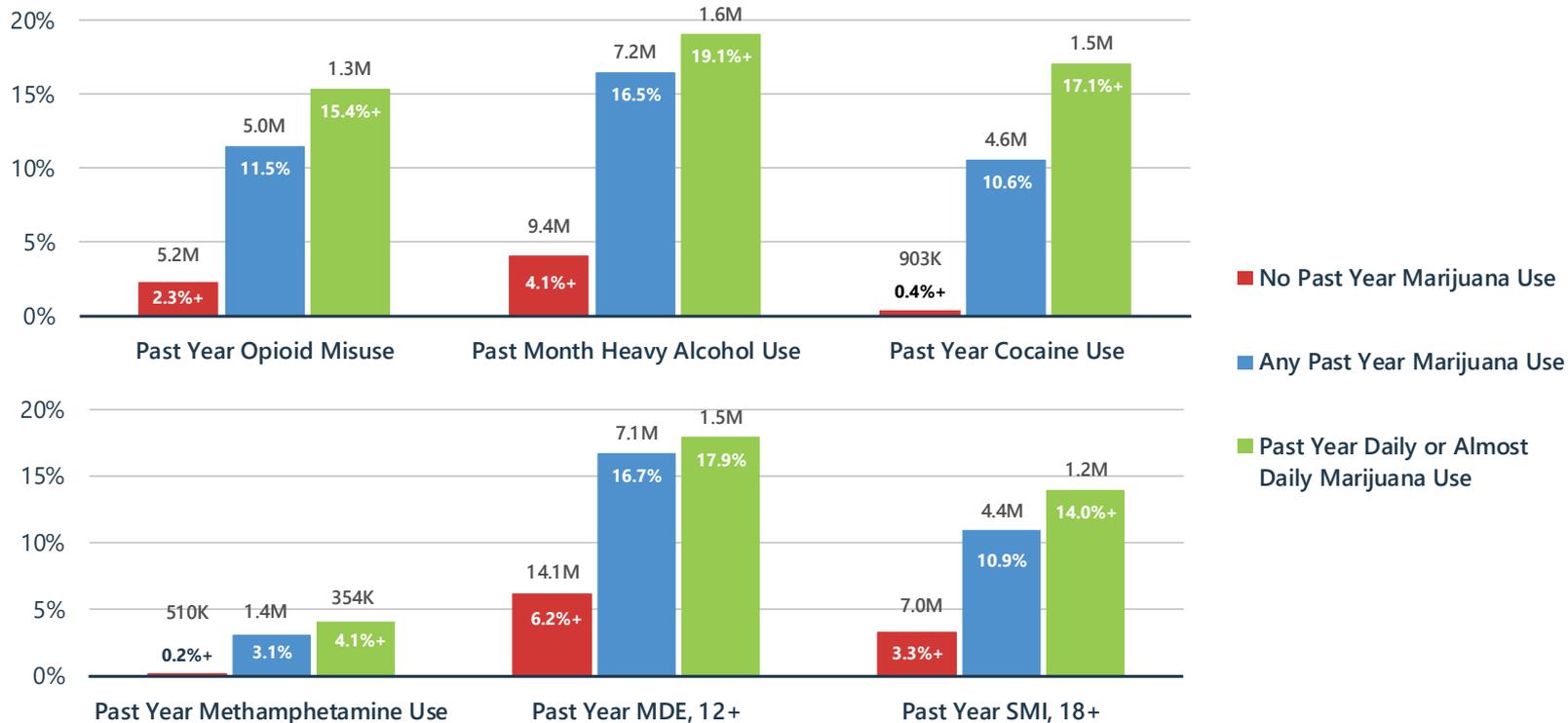
- Fetal growth restriction
- Stillbirth
- Preterm birth
- Neurological development issues in exposed children:
- Hyperactivity
- Cognitive deficits (*Metz TD and Stickrath EH, 2015*)

* Estimate not shown due to low precision.

+ Difference between this estimate and the 2018 estimate is statistically significant at the .05 level.

Marijuana Use Related to Other Substance Use, MDE and SMI

PAST YEAR/MONTH, 2018 NSDUH, 12+

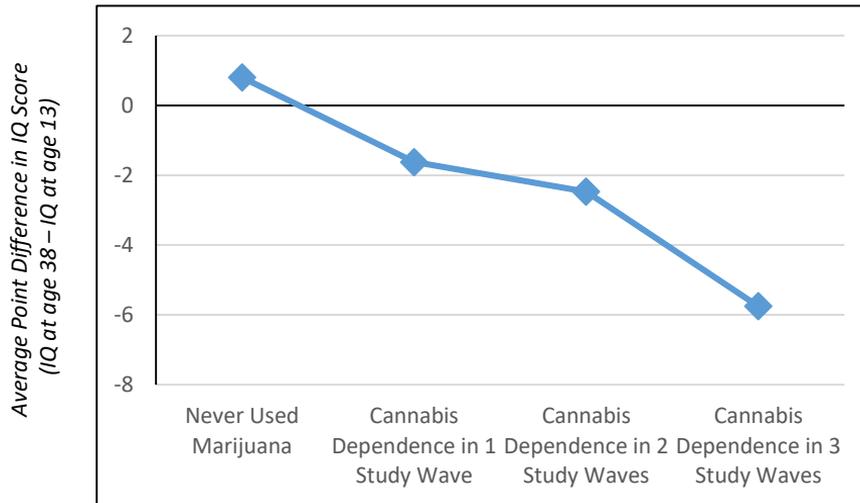


+ Difference between this estimate and the estimate for people with past year marijuana use is statistically significant at the .05 level.

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



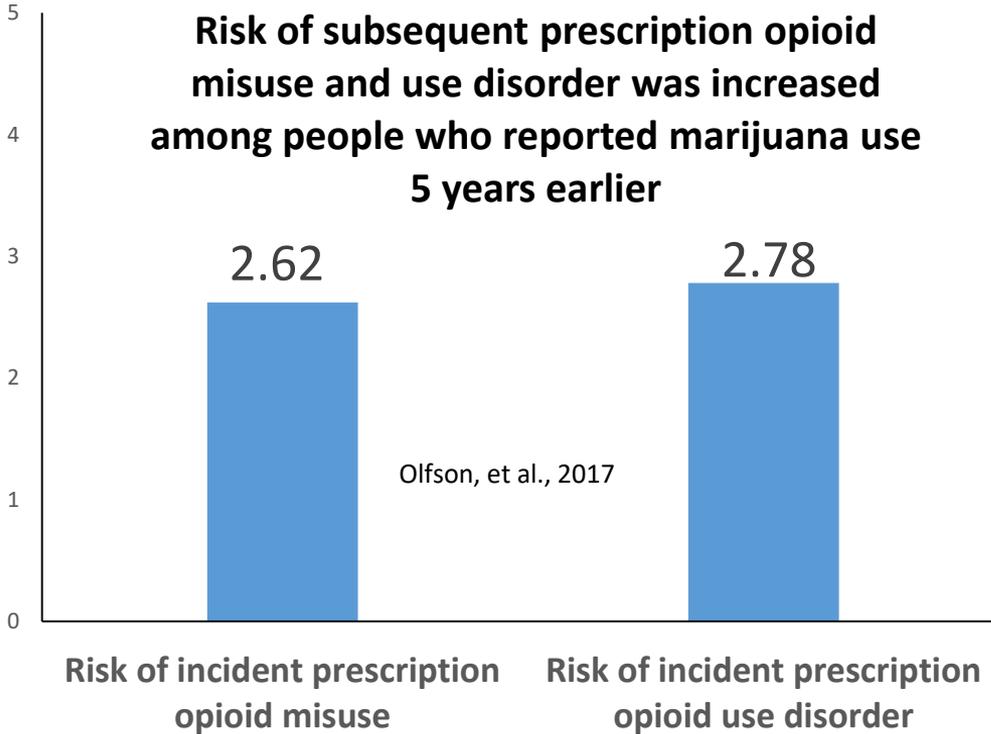
All groups started with roughly equivalent IQ scores at age 13

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

There was a consistent dose-response relationship across the groups

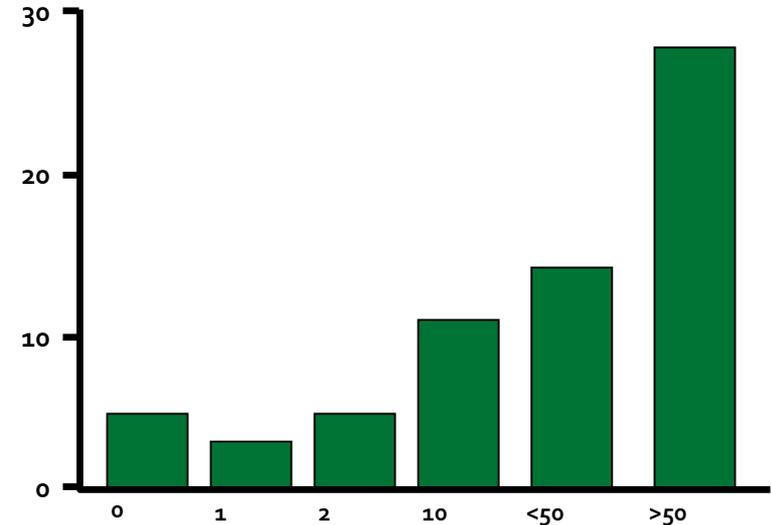
Marijuana Major Risks: Addiction to Opioid Analgesics and Serious Mental Illness

Risk of subsequent prescription opioid misuse and use disorder was increased among people who reported marijuana use 5 years earlier



Association between state medical marijuana laws and opioid overdose mortality reversed direction from -21% (1999-2010) to +23% (1999-2017) Shover, et al., 2019

Risk of schizophrenia increases as marijuana use increases

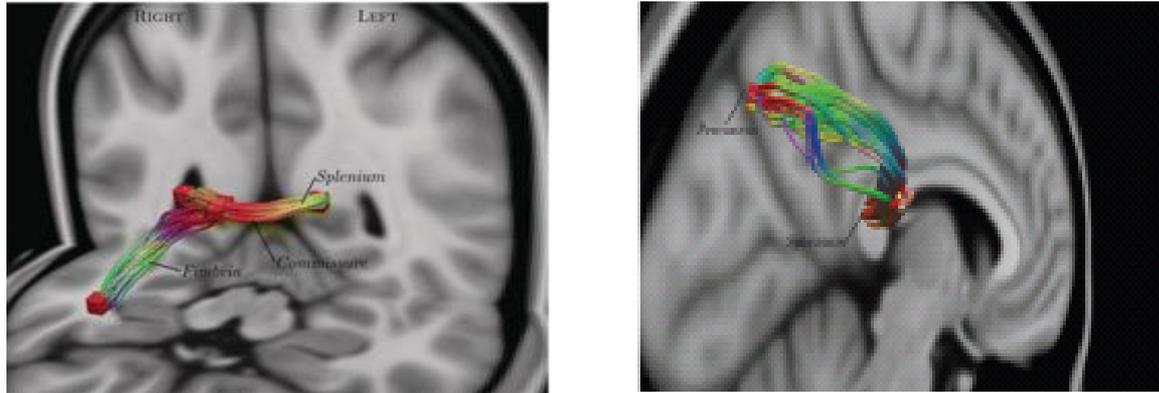


Number of times marijuana taken

Andreasson et al. 1987

ALTERED BRAIN STRUCTURE AND FUNCTION IN YOUTH WHO REGULARLY USE MARIJUANA

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

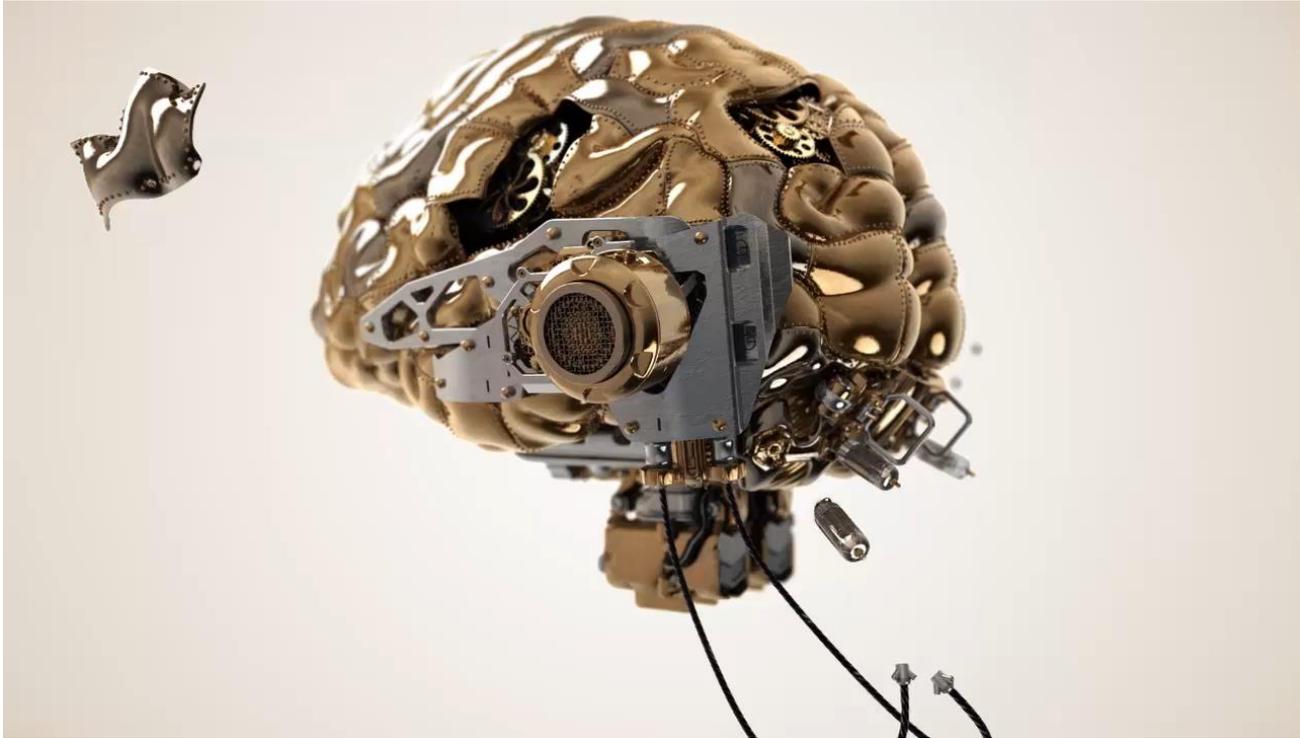


Decreases in brain fiber connectivity may help explain the cognitive impairment and vulnerability to certain mental health conditions seen among people with early onset and regular use.

Policy Considerations

- Make Americans aware of marijuana risks with focus on adverse impact on youth
- Prevention campaign
 - Public service announcements
 - Train practitioners on screening, evaluation, referral, treatment/co-occurring conditions
 - Community prevention funding aimed at marijuana
 - Surgeon General Advisory
- Research
 - Safety issues: drug-drug interactions, clinical pharmacology based on route of administration, field testing
 - Treatment research

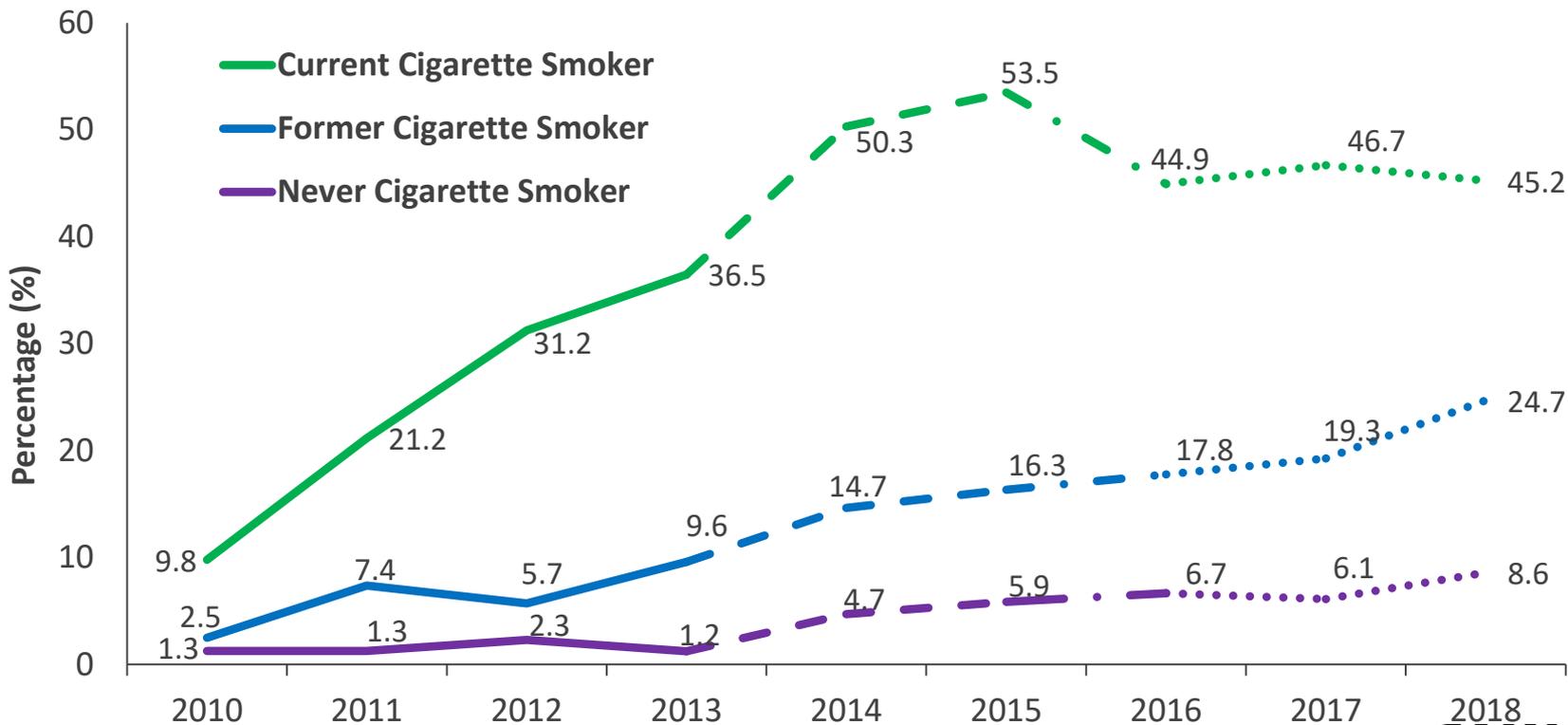
Build A Brain



Vaping

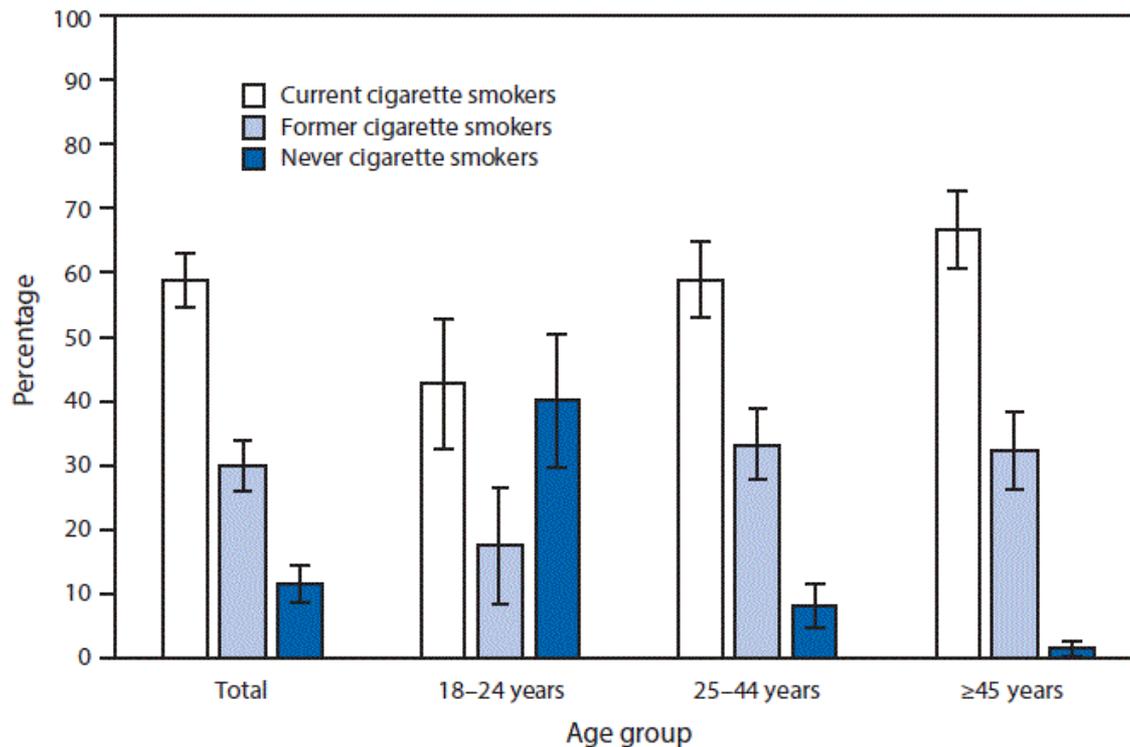
An Emerging Problem

E-Cigarette Use on the Rise: Adult Ever Use of E-Cigarettes by Cigarette Smoking Status – U.S., 2010-2018



Source: CDC licensed data fielded by Porter Novelli Services. Summer Styles Survey, 2010-2018

Cigarette Smoking Status Among Current Adult E-Cigarette Users, by Age Group

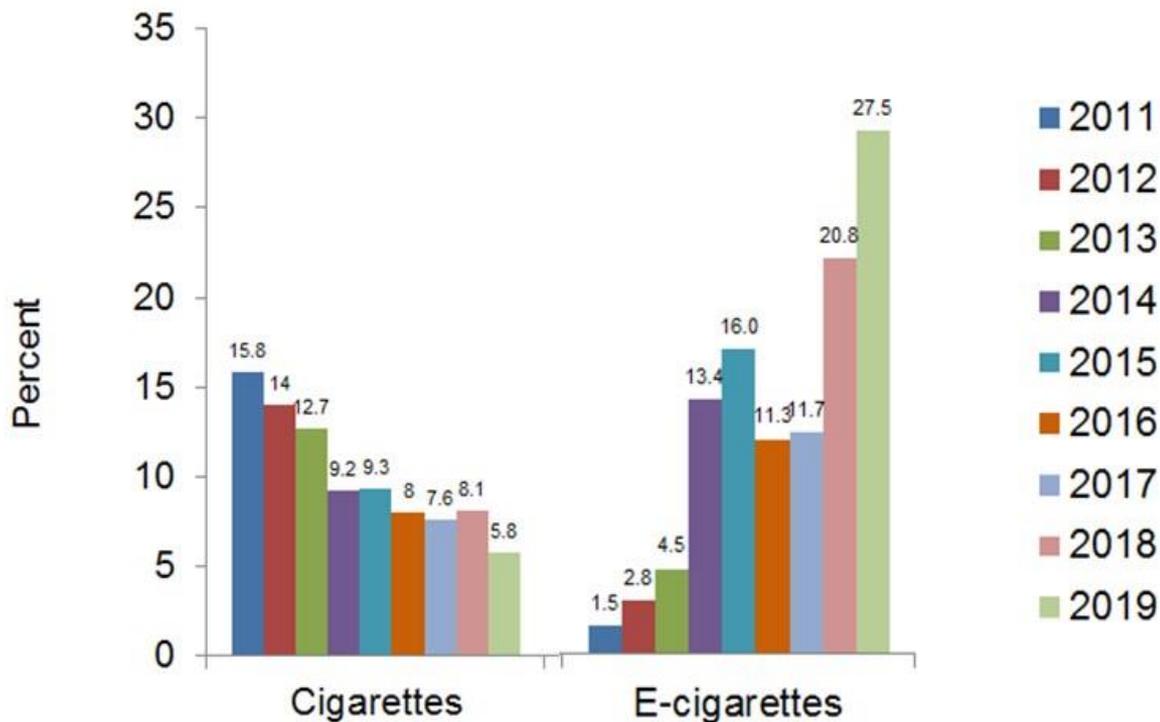


Source: *QuickStats*: Cigarette Smoking Status Among Current Adult E-cigarette Users, by Age Group — National Health Interview Survey, United States, 2015. *MMWR Morb Mortal Wkly Rep* 2016;65:1177.

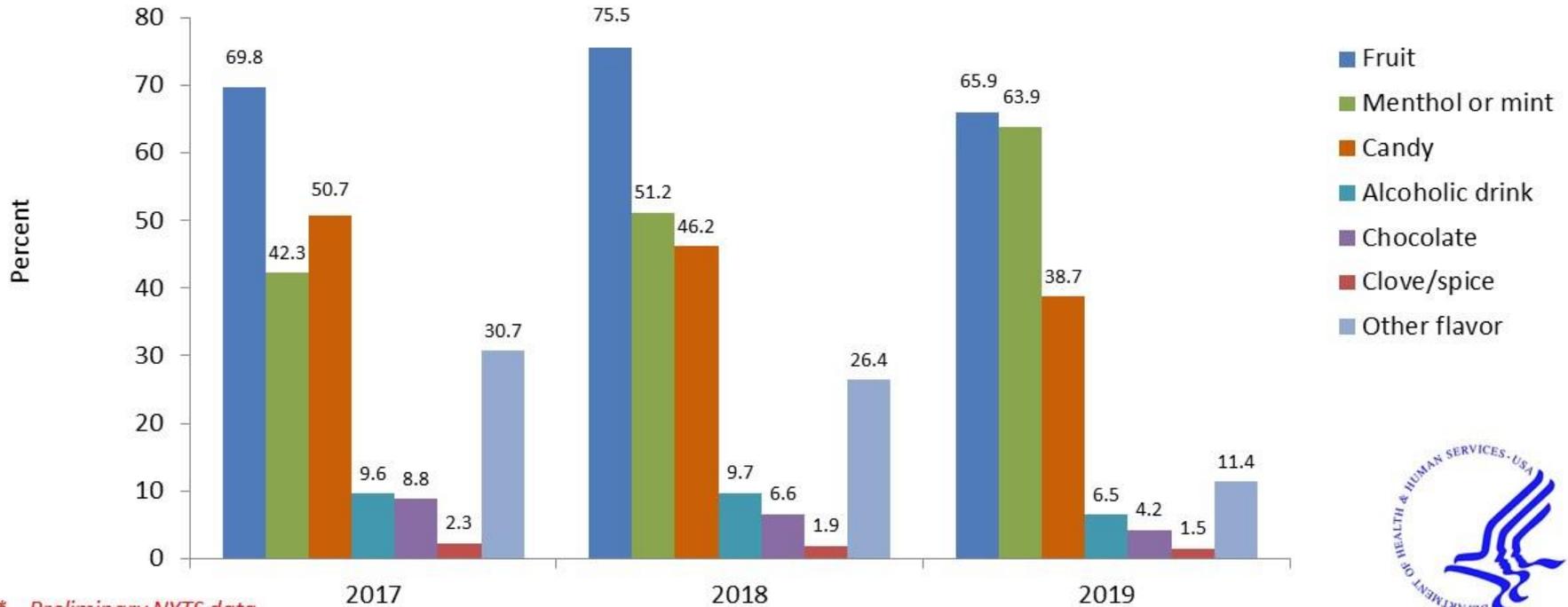
NATIONAL YOUTH TOBACCO SURVEY*: YOUTH USE OF E-CIGARETTES CONTINUES TO CLIMB

High school students reporting use within 30 days preceding administration of the National Youth Tobacco Survey.
* 2019 preliminary data

* *Preliminary data*
* Reported use within 30 days preceding administration of survey.



FLAVORS POPULAR AMONG HIGH SCHOOL USERS OF E-CIGARETTES*



* Preliminary NYTS data

Source: FDA News Release: *Trump Administration Combating Epidemic of Youth E-Cigarette Use with Plan to Clear Market of Unauthorized, Non-Tobacco-Flavored E-Cigarette Products*, Sept. 11, 2019.



FDA Intends to Clear the Market of Flavored E-cigarettes

- To help reverse the deeply concerning epidemic of youth e-cigarette use FDA announced on September 11, 2019 that it intends to clear the market of unauthorized, non-tobacco-flavored e-cigarette products, including mint and menthol.
- FDA will be sharing more on the specific details of the plan and its implementation soon.

Source: Food and Drug Administration, <https://www.fda.gov/news-events/press-announcements/trump-administration-combating-epidemic-youth-e-cigarette-use-plan-clear-market-unauthorized-non>

Health Effects

- Nicotine exposure during adolescence can cause addiction and can harm the developing adolescent brain.
- Nicotine delivered by e-cigarettes during pregnancy can result in multiple adverse consequences, including sudden infant death syndrome, altered brain structure (corpus callosum) and function (deficits in auditory processing), and obesity.
- Ingestion of e-cigarette liquids containing nicotine can cause acute toxicity and possibly death if the contents of refill cartridges or bottles containing nicotine are consumed.

Source: U.S. Department of Health and Human Services. E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

Health Effects, Continued...

- There's more in vaping fluid than nicotine:
- E-cigarettes can expose users to several chemicals, including nicotine, carbonyl compounds, and volatile organic compounds, known to have adverse health effects.
- The health effects and potentially harmful doses of heated and aerosolized constituents of e-cigarette liquids, including solvents, flavorants, and toxicants, are not completely understood.
- E-cigarettes can also be used to deliver other drugs, including marijuana. In 2016, one-third of U.S. middle and high school students who ever used e-cigarettes had used marijuana in e-cigarettes.

Sources (Bullets 1-2): U.S. Department of Health and Human Services. E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

Bullet 3: Trivers KF, Phillips E, Gentzke AS, Tynan MA, Neff LJ. Prevalence of Cannabis Use in Electronic Cigarettes Among US Youth. *JAMA pediatrics*. 2018;172(11):1097-1099.

E-cigarettes and Marijuana

E-Cigarette Use Among Youth and Young Adults

A Report of the Surgeon General



U.S. Department of Health and Human Services

“E-cigarette products can be used as a delivery system for cannabinoids and potentially for other illicit drugs.”

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Research Letter
November 2018
Prevalence of Cannabis Use in Electronic Cigarettes Among US Youth

Katrina F. Trivers, PhD, MSPH¹; Elyse Phillips, MPH¹; Andrea S. Gentzke, PhD, MS¹; et al

[Author Affiliations](#) | [Article Information](#)
JAMA Pediatr. 2018;172(11):1097-1099. doi:10.1001/jamapediatrics.2018.1920

Electronic cigarettes (e-cigarettes) are the most commonly used tobacco product.

33.3% of high school e-cigarette users report using marijuana in the device.

23.1% of middle school e-cigarette users report using marijuana in the device.

Sources: Singh T, Kennedy S, Marynak K, Persoskie A, Melstrom P, King BA. Characteristics of Electronic Cigarette Use Among Middle and High School Students — United States, 2015. MMWR Morb Mortal Wkly Rep 2016;65:1425–1429.. Trivers KF et al. Prevalence of Cannabis Use in Electronic Cigarettes Among US Youth. JAMA Pediatr. 2018;172(11):1097-1099.

Outbreak of Lung Disease Associated with E-Cigarette Use (Vaping)

- The Centers for Disease Control and Prevention (CDC), the U.S. Food and Drug Administration (FDA), state and local health departments, and other clinical and public health partners are currently investigating a multistate outbreak of lung disease associated with e-cigarette product use (devices, liquids, refill pods, and/or cartridges).
- There are 380+ confirmed and probable cases of lung illness reported from 36 states and 1 U.S. territory. Six deaths have been reported from 6 states.
- All reported cases have a history of e-cigarette product use or vaping.
- Most patients have reported a history of using e-cigarette products containing THC, the psychoactive ingredient in marijuana. Many patients have reported using THC and nicotine. Some have reported the use of e-cigarette products containing only nicotine.
- **The CDC does not yet know the specific cause of these illnesses. The investigation has not identified any specific e-cigarette or vaping product or substance that is linked to all cases.**

Source: Centers for Disease Control and Prevention: Outbreak of Lung Disease Associated with E-Cigarette Use, or Vaping, https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html

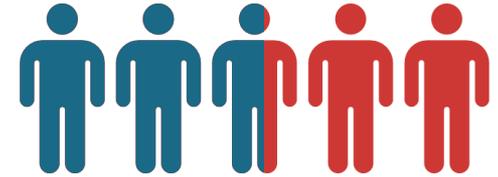
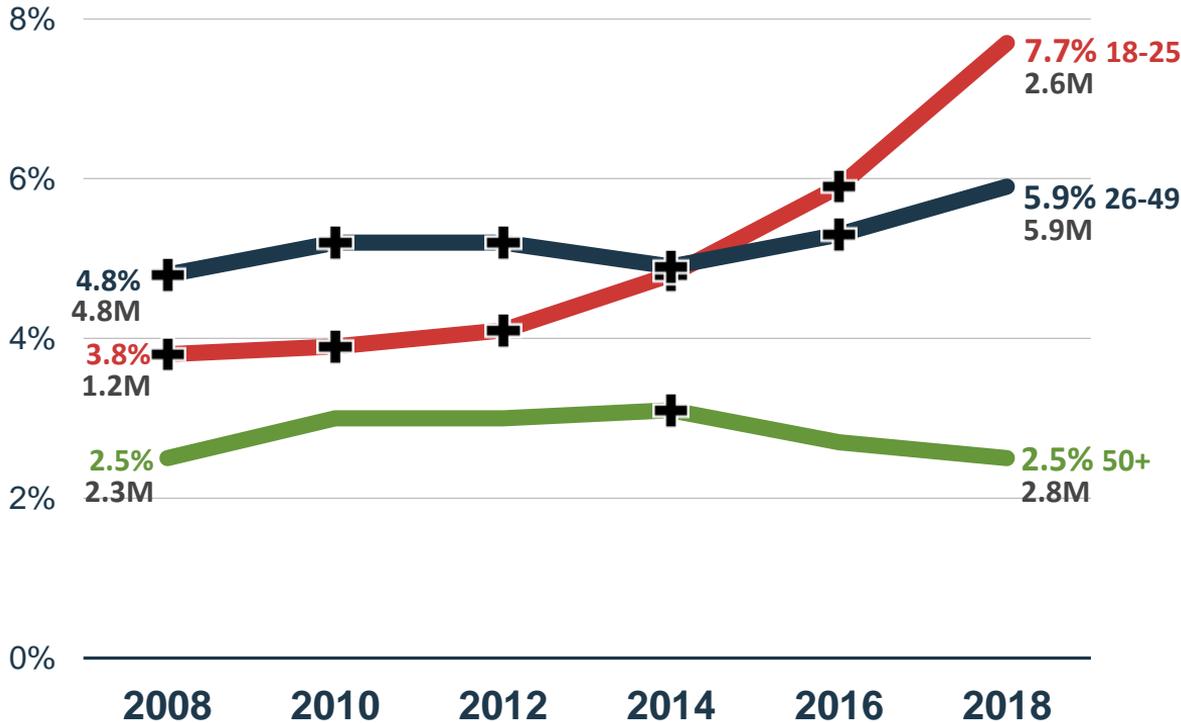
What CDC Recommends:

- Until the CDC knows more, if you are concerned about these specific health risks, CDC recommends that you consider refraining from using e-cigarette or vaping products.
- If you are an adult who used e-cigarettes containing nicotine to quit cigarette smoking, do not return to smoking cigarettes. There are other approaches to smoking cessation: medication/support groups
- If you have recently used an e-cigarette or vaping product and you have symptoms like those reported in this outbreak (cough, shortness of breath or chest pain, nausea, vomiting, diarrhea, fatigue, fever or abdominal pain), see a healthcare provider.
- Regardless of the ongoing investigation:
 - Anyone who uses an e-cigarette or vaping product should not buy these products (e.g., e-cigarette or vaping products with THC, other cannabinoids) off the street and should not modify or add any substances to these products that are not intended by the manufacturer.
 - Youth and young adults should not use e-cigarette products.
 - Women who are pregnant should not use e-cigarette products.
 - Adults who do not currently use tobacco products should not start using e-cigarette products.

Serious Mental Illness
Increasing Prevalence
Increases in Co-Occurring Disorders

Serious Mental Illness (SMI) Rising among Young Adults (18-25 y.o.) and Adults (26-49 y.o.)

PAST YEAR, 2008-2018 NSDUH, 18+



53.8%

1.4M young adults with SMI received treatment in 2018

46.2% got NO treatment

63.7%

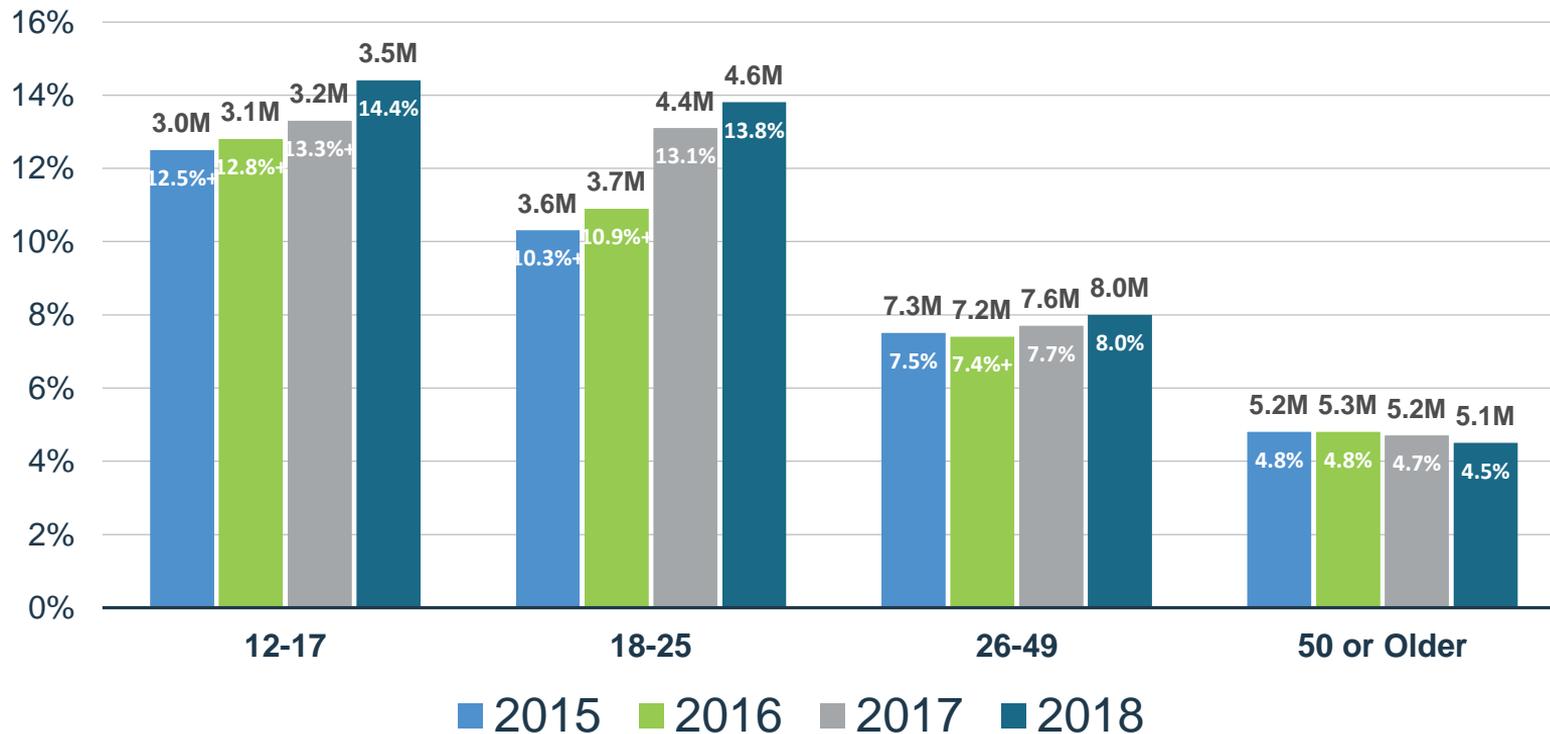
3.8M adults (26-49 y.o.) with SMI received treatment;

36.3% got NO treatment

+ Difference between this estimate and the 2018 estimate is statistically significant at the .05 level.

Major Depressive Episodes

PAST YEAR, 2015-2018 NSDUH, 12+

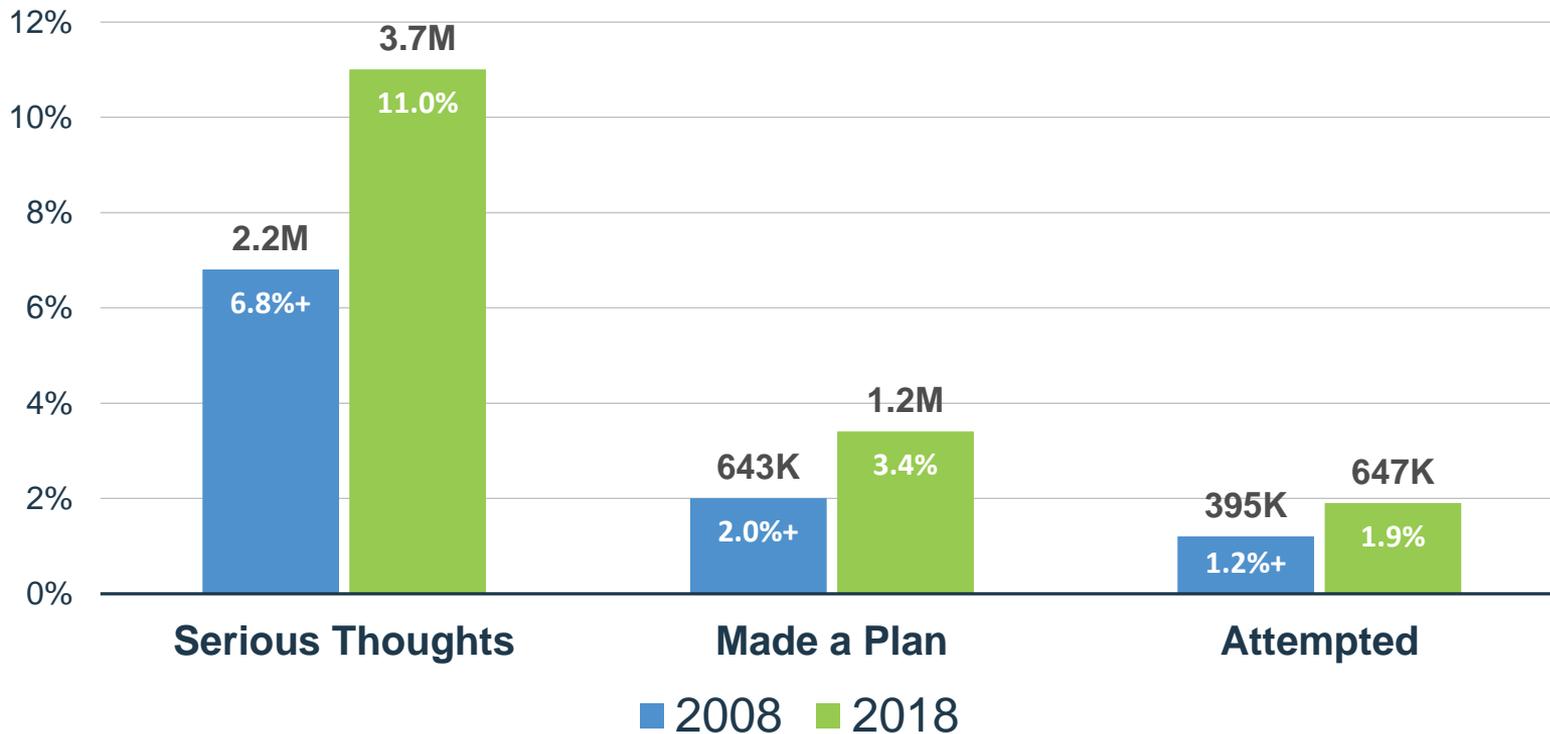


+ Difference between this estimate and the 2018 estimate is statistically significant at the .05 level.

Note: The adult and youth MDE estimates are not directly comparable.

Suicidal Thoughts, Plans, and Attempts Increase for Young Adults (18-25 y.o)

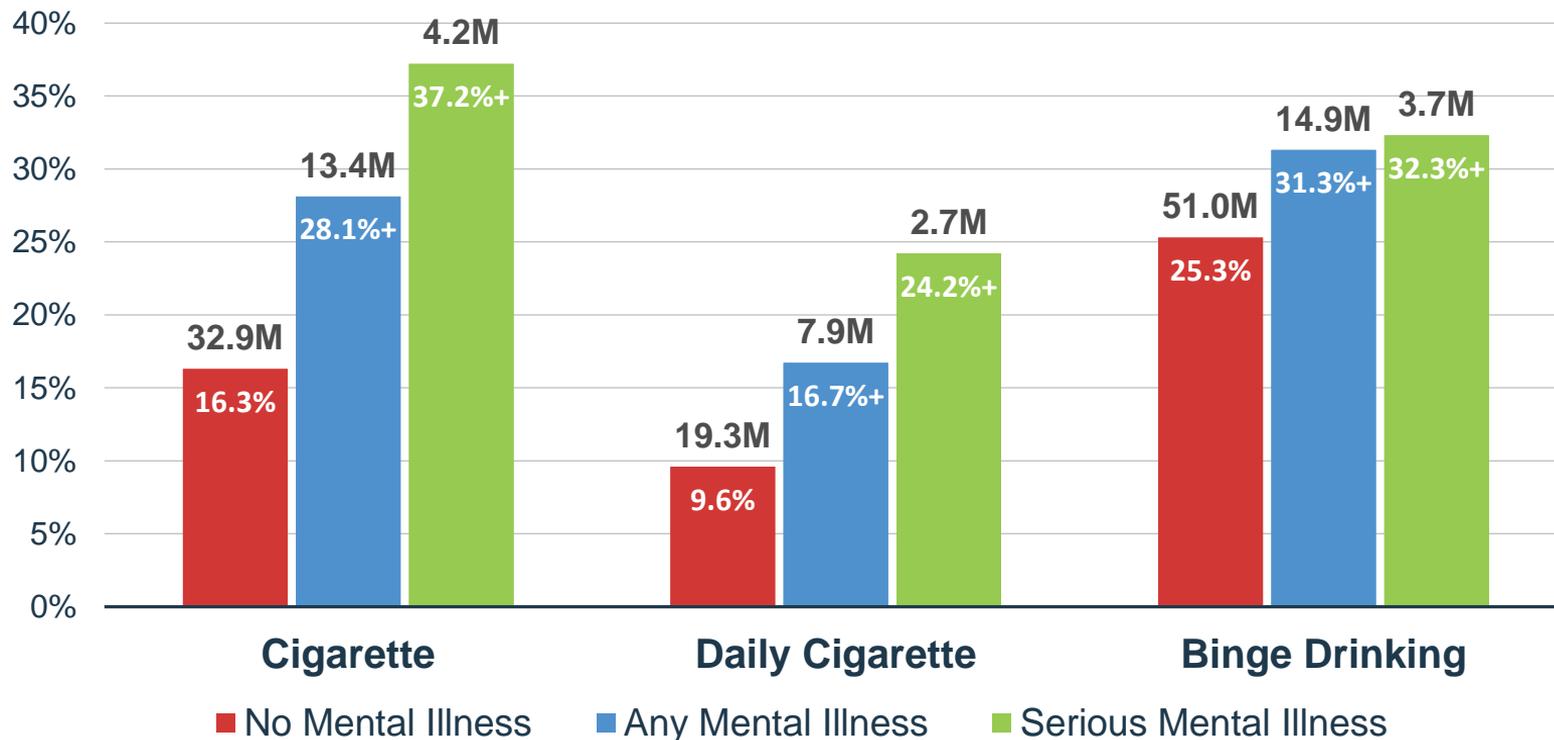
PAST YEAR, 2008 and 2018 NSDUH, 18-25



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Co-Occurring Issues: Substance Use Is More Frequent among Adults (≥ 18 y.o.) with Mental Illness

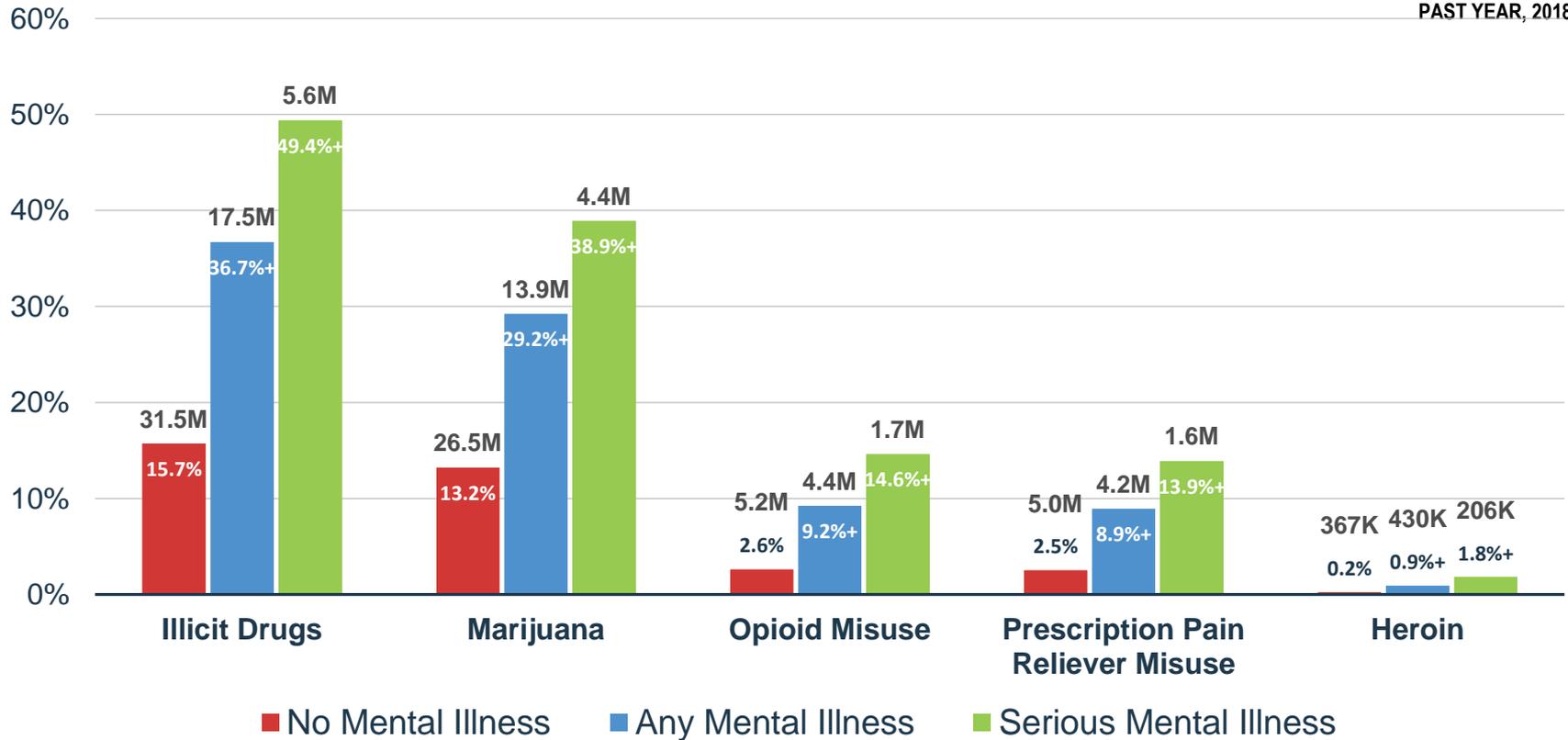
PAST MONTH, 2018 NSDUH, 18+



+ Difference between this estimate and the estimate for adults without mental illness is statistically significant at the .05 level.

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Suicide Lies



Summary

- Opioids
- Marijuana
- Serious Mental Illness
- Ongoing and significant threats to our people
- Polysubstance use is the rule—not the exception
- Substance misuse/abuse is strongly correlated with serious mental illness
- Vaping is an emerging issue that we are still learning about, but which clearly carries major risks already

What SAMHSA is Doing: Strengthening Healthcare Practitioner

New Approach to Training and Technical Assistance

Establishment of a national system of Technology Transfer Centers: MH with supplements for children's issues/school-based programs, Substance Abuse Prevention, and Addiction

Clinical Support System for Serious Mental Illness (CSS-SMI), Privacy TTC, Eating Disorders TTC

- PCSS Universities
- State Targeted Response to Opioids (STR/SOR) TA program
- Project ECHO type training, Centers of Excellence: Practical experience
- Education on assessment/treatment of SUDs by healthcare profession
- Evidence-Based Practices Website
- SAMHSA Products (e.g.: TIP 63, Pregnant/Post Partum Women with OUD Factsheets, NSDUH presentation, Prevention Day, MAT in jails/prisons)

SAMHSA: Technical Assistance and Training

EVIDENCE-BASED, LOCAL TRAINING, NATION-WIDE SCOPE

Evidence-Based Practice Repository in NMHSUPL

National Technical Assistance/Training Centers:

State Targeted Response to Opioids, Providers' Clinical Support System for Medication Assisted Treatment, Clinical Support System for Serious Mental Illness/Supplements for School-Based Mental Health Programs, National Child Traumatic Stress Network, National Center on Substance Abuse and Child Welfare, Center for Integrated Health Services, Veterans, GAINS (Criminal Justice), Disaster, Social Inclusion/Public Education, Suicide Prevention, SOAR, Privacy (HIPAA, 42 CFR), Eating Disorders

Combined Efforts at the State, Regional, and Local Levels Oriented to All Health Professionals

Regional Substance Abuse Prevention, Addiction, Mental Health, Collaborating Technology Transfer Centers

Region
1

Region
2

Region
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Region
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Region
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Region
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Region
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Region
10

National Hispanic/Latino TTCs

National American Indian/Alaska Native TTCs

Integration of Peers into the Healthcare Workforce

Support use of credentialed peer providers and other paraprofessionals as an integrated component of comprehensive care

Peers can provide an important component of care in the form of:

- Links between psychiatric and medical systems with recovery support systems in communities
- Supports to assist individuals in obtaining needed medical and recovery support services

SAMHSA goals:

- Support the establishment of national credentialing, licensing and certification programs that provide training recognized in all states
- Encourage better understanding of peer professionals in mental and substance use disorder treatment and recovery resources by healthcare professionals
- Encourage peer professionals to obtain training and education on psychiatric medicine and evidence-based approaches to care and treatment of mental and substance use disorders
- Utilize TTCs to provide needed education and training

Policy Lab to explore evidence for effectiveness of peer support interventions

Importance of Provider Communication: Change to 42 CFR

- Changes to redisclosure regulations to allow recording of substance use disorder treatment information in non-Part 2 medical records
- Release to an entity (e.g.: SSA) with patient consent
- Prescribers can check central registries; dispensed scheduled medications can be recorded in PDMP according to state law
- Sharing of information by a Part 2 program in time of declared natural disaster
- Change to sanitizing requirements
- Research disclosures under Part 2 by HIPAA covered entity to entities not covered by HIPAA.
- Extension of court-ordered placement of undercover agents/informants in course of investigation to 12 months

Thank You!

SAMHSA's mission is to reduce the impact of mental illness and substance use issues on America's communities.

[Findtreatment.samhsa.gov](https://findtreatment.samhsa.gov)

SAMHSA National Lifeline: 800-273-TALK (8255)