



**UW PACC**

Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

# SUICIDE AND ALCOHOL

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# DISCLOSURES

Richard Ries, MD has no financial relationships with an ACCME defined commercial interest.

# EDUCATIONAL OBJECTIVES

At the conclusion of this session, participants should be able to:

1. Differentiate key factors associated with suicide and alcohol
2. Perform risk assessment for both suicide and alcohol use to improve patient care.
3. Translate information from study evidence around both suicide and alcohol use disorders into daily clinical interviews and care planning.

# CASE VIGNETTE

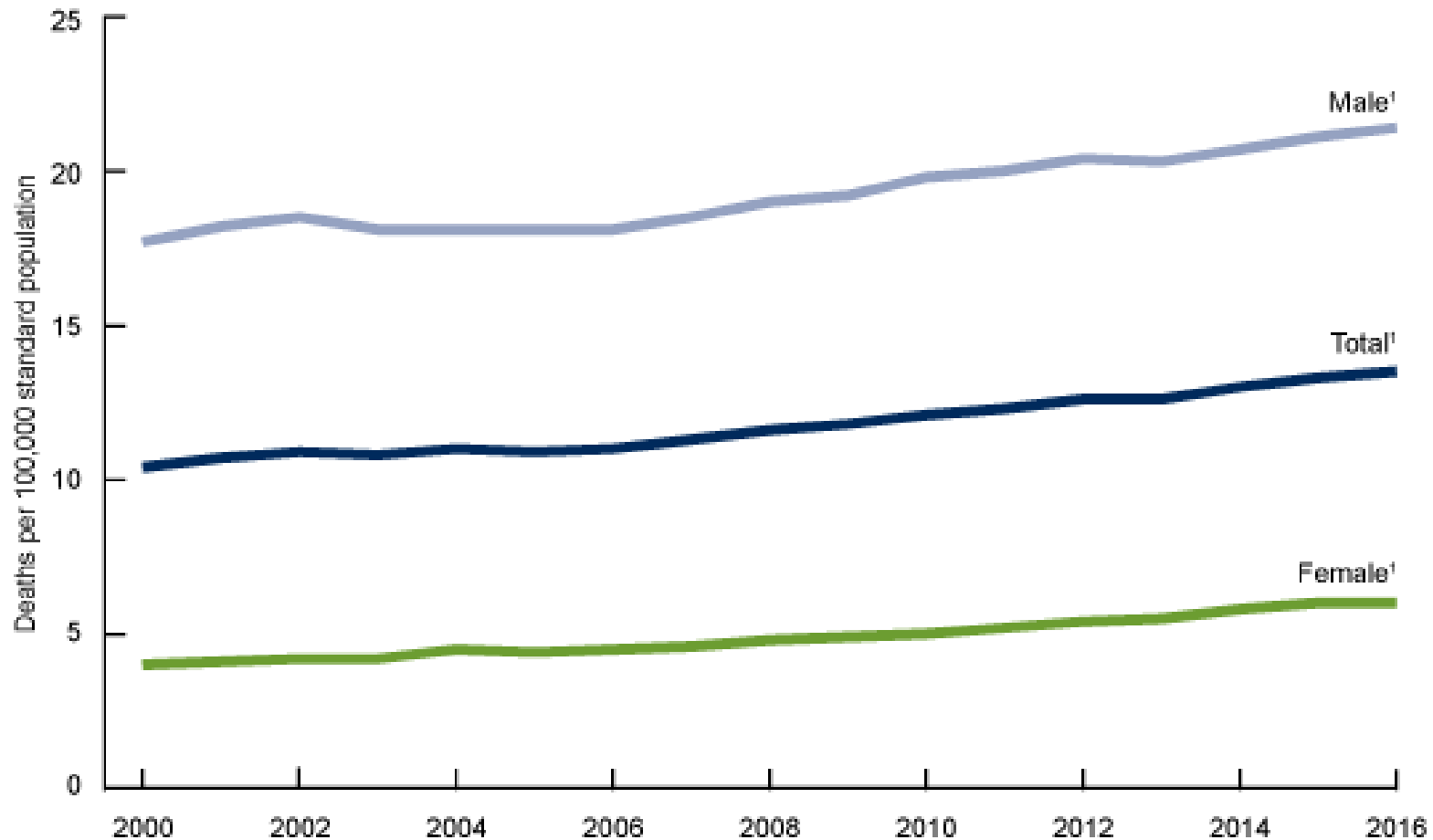
- Judy is a 32 yo female who comes to your practice with alcohol related gastric pain, history in past of some bleeding, alcohol dependence, frequent intoxication and recent admission for suicide attempt, and depression in context of drinking

What else do you want to know?

# CASE VIGNETTE-2

- She says she knows her drinking is killing her
- Wants to stop the pain and the drinking or at least cut it down
- How do you respond?
  - Drinking issues
  - Suicide issues
  - Medical/gastric issues

# USA Trends in All Male and Female Suicide Deaths



# National Trends of Mental Health Care Among US Adults Who Attempted Suicide in the Past 12 Months

[Tanner J Bommersbach<sup>1</sup>](#), [Robert A Rosenheck<sup>1,2</sup>](#), [Taeho Greg Rhee<sup>1,2,3</sup>](#)

**Results:** Of 484 732 survey participants, risk factors In multivariate analyses,

- serious psychological distress (aOR, 7.51 P < .001),
- major depressive episodes (aOR, 2.90 ; P < .001),
- alcohol use disorder (aOR, 1.81 P < .001)
- divorced or separated (aOR, 1.65 P < .001)
- being unemployed (aOR, 1.47 P < .001)

# DISCERNING SUICIDE IN DRUG INTOXICATION DEATHS: PAUCITY AND PRIMACY OF SUICIDE NOTES AND PSYCHIATRIC HISTORY

IAN R. H. ROCKETT, ET AL , PLOS 2017

- A suicide note, prior suicide attempt, or affective disorder was documented in less than one-third of suicides and one-quarter of undetermined deaths.
- The prevalence gaps were larger among drug intoxication cases than gunshot/hanging cases. [OR]= 41.14
- Without psychological/psychiatric evidence contributing to manner of death classification, **suicide by drug intoxication in the US is likely profoundly under-reported**

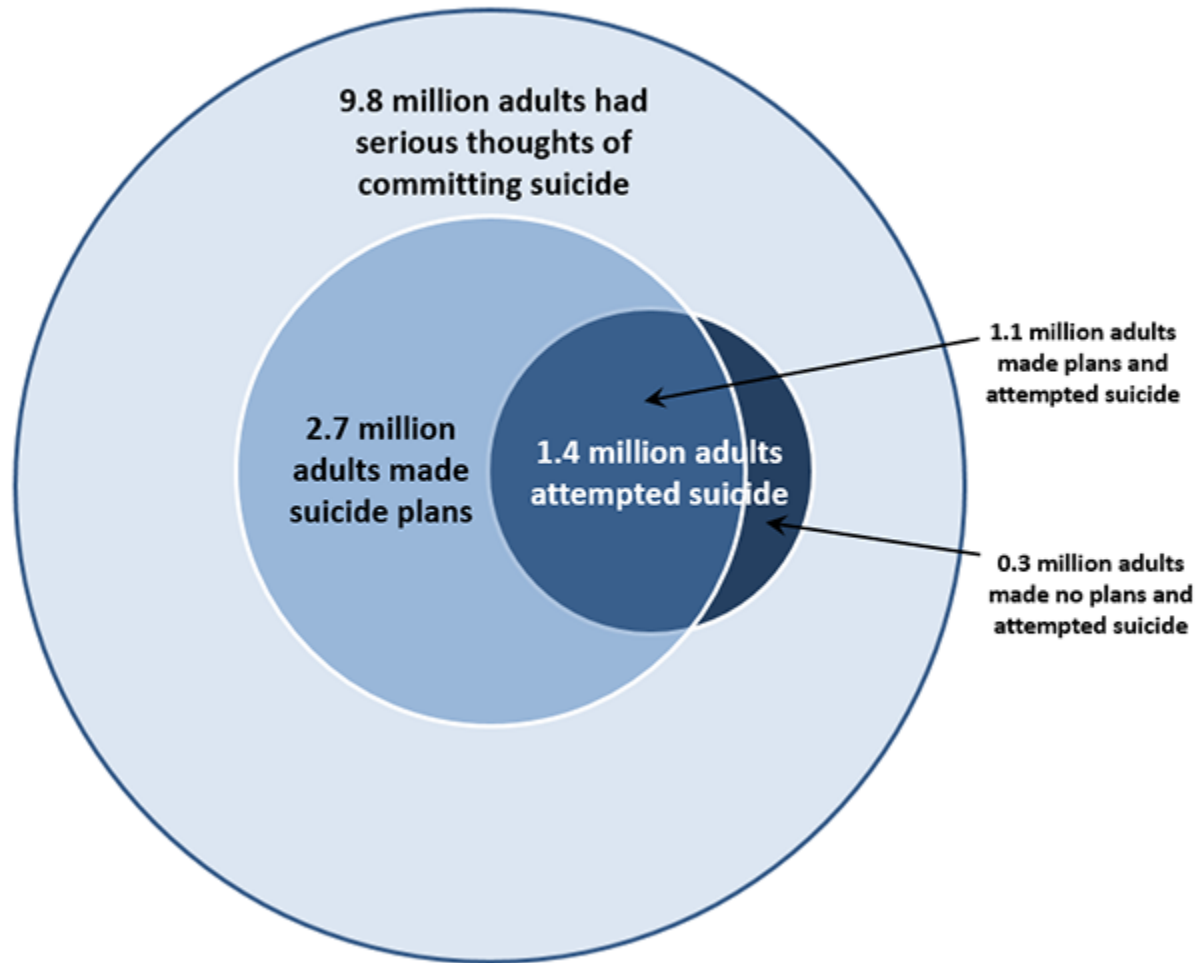


# **Suicide and SUDs: Suicide Overview**

# SUICIDE OVERVIEW

- 2017 Almost 48,000 people in the U.S. died by suicide. This means that...
  - 870 people** die by suicide **every week**
  - 130 people** die by suicide **every day**
  - 1 person** dies by suicide **every 11 minutes**
- For every person who dies by suicide, approximately 25 people will attempt suicide
- Almost 10 million U.S. adults each year have serious suicidal thoughts

**Figure 9. Past Year Suicidal Thoughts and Behaviors Among U.S. Adults (2015)**

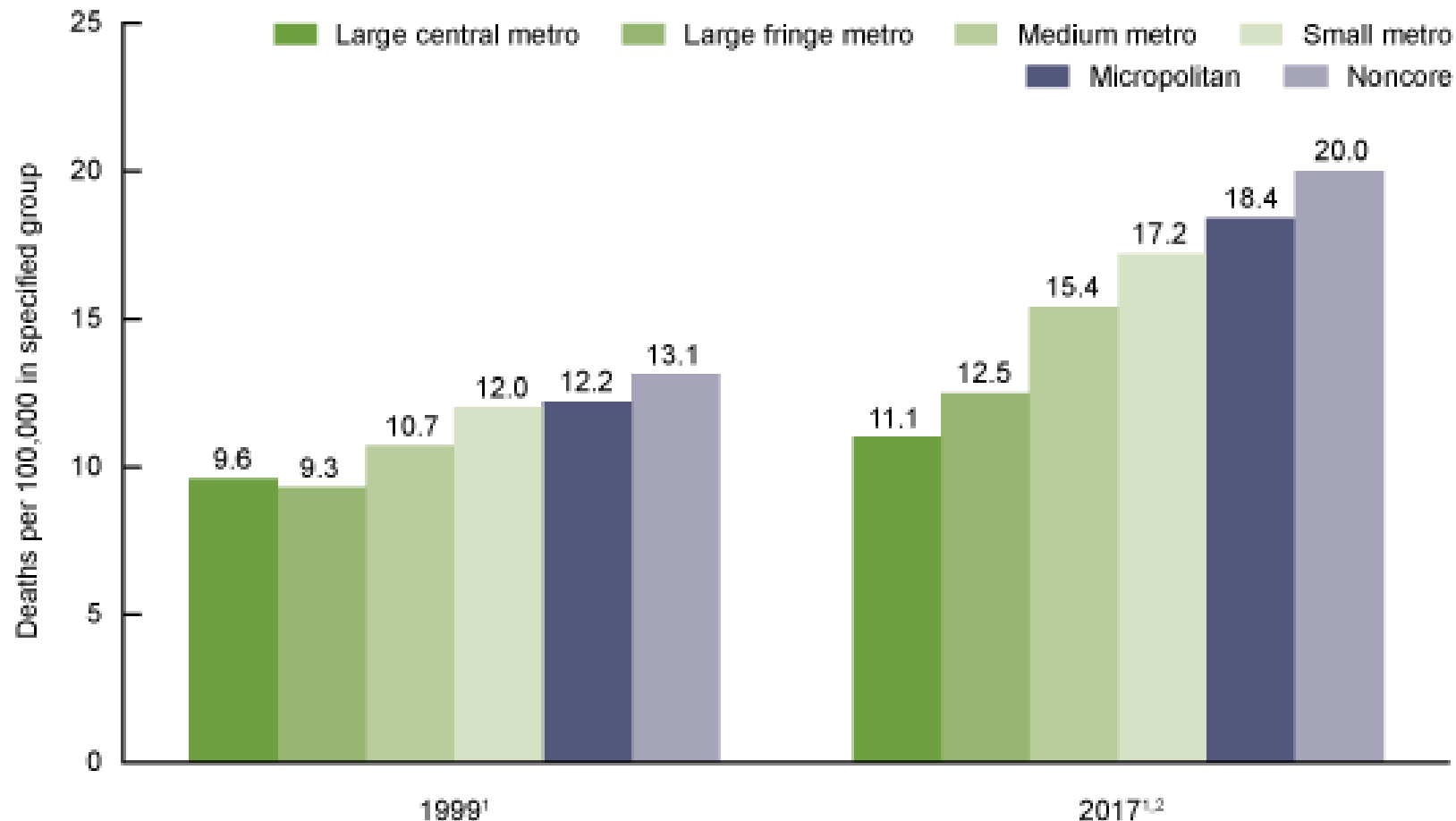


*Data courtesy of SAMHSA*

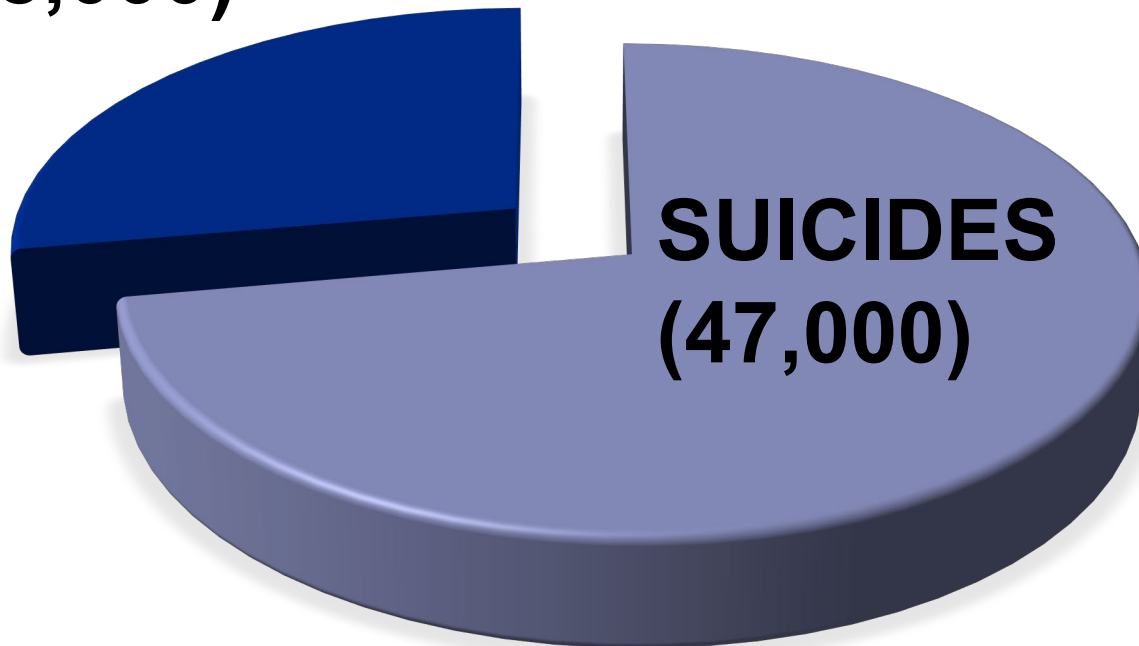
# HIGHER SUICIDE RATES IN RURAL COUNTIES

CDC 2019

[HTTPS://WWW.CDC.GOV/NCHS/PRODUCTS/DATABRIEFS/DB330.HTM](https://www.cdc.gov/nchs/products/databriefs/db330.htm)



**HOMICIDES  
(18,000)**



# ALCOHOL AND VIOLENCE

Alcohol is a factor in 40% of all violent crimes today

About 3 million violent crimes occur each year. in

About two-thirds of violent crimes are characterized as simple assaults.

>Alcohol use by the offender was a factor in:

- 37% of rapes and sexual assaults
- 33% of Suicide
- 15% of robberies
- 27% of aggravated assaults
- 25% of simple assaults

•<https://www.sasc-dbq.org/alcohol-and-crime>

# RISKS AND LETHALITY OF SUICIDE AND OVERDOSE DEATHS OVERLAP

- Risk of Attempt
  - Previous attempt
  - Family History of Suicide
  - Psychiatric disorder
  - **Alcohol/Drug disorder**
  - Alcohol/Drug Intoxication
  - Opioid Use Disorder
  - Loss
  - Hopelessness/end of rope
- Risk of Lethality
  - Male 4/1 over females
  - Guns 70%
    - Access
  - Older >70
  - Opioid Use Disorder
  - Alone/Loss of support
  - Alcohol + other drugs
  - Serious illness
    - Medical
    - Psychiatric

# ALCOHOL AFFECTED/RELATED MENTAL DISORDERS/SYNDROMES

- Depression
- Bipolar Depression
- Panic
- General Anxiety
- Social Anxiety
- PTSD
- Adult Attention Deficit
- Aggression
- Suicide
- Withdrawal
- TBS
- Medical
- Neuro



# Substance Induced Disorders

**(1) Developed within a month of intoxication or withdrawal**

**OR**

**(2) Evidence that the symptoms are NOT substance induced include**

- a. Symptoms persist > 1 month after use**
- b. Symptoms > than expected for  
type/amount/duration of substance**
- c. Syndrome not delirium or classic  
intoxication/withdrawal**

Youdelis-Flores et al: Substance Induced Mental Disorders, ASAM Principles of Addiction Medicine Ed 5 and

# PREVIOUS ATTEMPT IS A A MAJOR SUICIDE RISK

- 4 yr cohort study: 20-25% of suicide victims made suicide attempts in the previous year before death. (Cooper J et al., 2005)
  - Suicide risk of 29- 54 X for men and 50 - 77-X for women with previous attempts as compared to the general population.
  - Suicide rates were highest during the first 6 months after an attempt.
  - Violent, more severe and multiple attempts are correlated with eventual suicide.

# SUICIDE: GENETIC CONTRIBUTION

- **Twin studies and controlled family studies:**
- Rate of 23.5% Mono Zyg vs DiZig 0.135% Risk Ratio 175. (Baldessarini & Hennen, 2004)
- Relatives of suicide completers were 10 times more likely to attempt or complete suicide (Kim CD et al., 2005)
- Adoption studies
  - Relative Suicide risk =7 x greater for biological versus adoptive relatives of index cases. (Wender, PH et al. 1986)

# SO HOW TO SCREEN?

- Research vs Clinical
- Detailed vs Brief
- Practical vs Theoretical
- Always tension with these issues in clinical world

# SUICIDE SCREENING

Ever been seriously suicidal? 0 1

2+

Last time was \_\_\_\_\_

Ever made a suicide attempt? 0 1 2+

Last time was \_\_\_\_\_

Currently having suicidal thoughts? Yes No

If yes:

**Do you have a plan?** Yes

No

Evaluate – How imminent and lethal is the plan?

“I will get drunk and wait outside until lightning hits me”

vs.

“I have a loaded gun at home and know how to use it and when I drink I get brave”

# ADDICTION & SUICIDE DEATH

- Approximately **one-third** of suicides have alcohol in their bodies at the time of death.
- Approximately **one-fifth** of suicides have opioids in their bodies (including heroin and prescription painkillers such as hydrocodone, methadone, oxycodone).
- With the Opioid Epidemic there are **Gray areas between accidental and intentional OD**

Yuodelis-Flores AJA 2015

# IS SUICIDE ALSO ADDICTIONS TERRITORY?

- **Alcohol strongest predictor of completed suicide over 5-10 years after attempt, OR= 5.18...vs. demog or psych disorders ( Beck J Stud Alc 1989)**
- **40-60% of completed suicides across USA/Europe are alcohol/drug affected (Editorial: Dying for a Drink: Brit Med J. 2001)**
- **700% increased risk of Suicide Attempts in matched pop.**
- **4.5% of alcohol Dep attempted suicide within 5 years of DX compared to controls**
  - **vs 0.8% in non-alcohol Dep matched comparison group p<.0001 Preuss/Schuckit Am J Psych 03**

# ROLE OF ALCOHOL USE DISORDER IN SUICIDAL BEHAVIOR

Prospective cohort study in Denmark following 18,000 people over 26 years:

- 8-fold increase in suicide deaths among individuals with an AUD diagnosis compared to those without AUD.
- Among US suicide victims who were psychiatrically hospitalized, AUD in middle aged males had the highest contribution to risk of suicide in follow up

Qin, P., *The impact of psychiatric illness on suicide: Differences by diagnosis of disorders and by sex and age of subjects*. *Journal of Psychiatric Research*, 2011.



# ROLE OF ALCOHOL IN SUICIDAL BEHAVIOR: ACUTE ALCOHOL INTOXICATION

After controlling for acute drug use and negative life events:

- Individuals are at increased risk for SA soon after drinking (OR=6.34)
- Higher levels of drinking increase risk over lower levels of drinking (OR=6.13) or not drinking at all (OR=16.19) before an attempt.

Bagge et al., 2013

<b>ASI Item</b>	<b>Overall</b>	<b>Males</b>	<b>Females</b>	<b>Test Statistic*</b>
Attempted Suicide (%)	<b>27%</b>	13%	28%	35.42**
Violent behavior problems (%)	43%	40%	46%	3.29***
Assault Charges (mean number)	0.29	0.46	0.15	4.46**
Weapons charges (mean number)	0.13	0.21	0.07	4.09**

\*\*p < 0.00001    \*\*\*0.1 ≤ p < 0.05

Zweben, et al., 2004

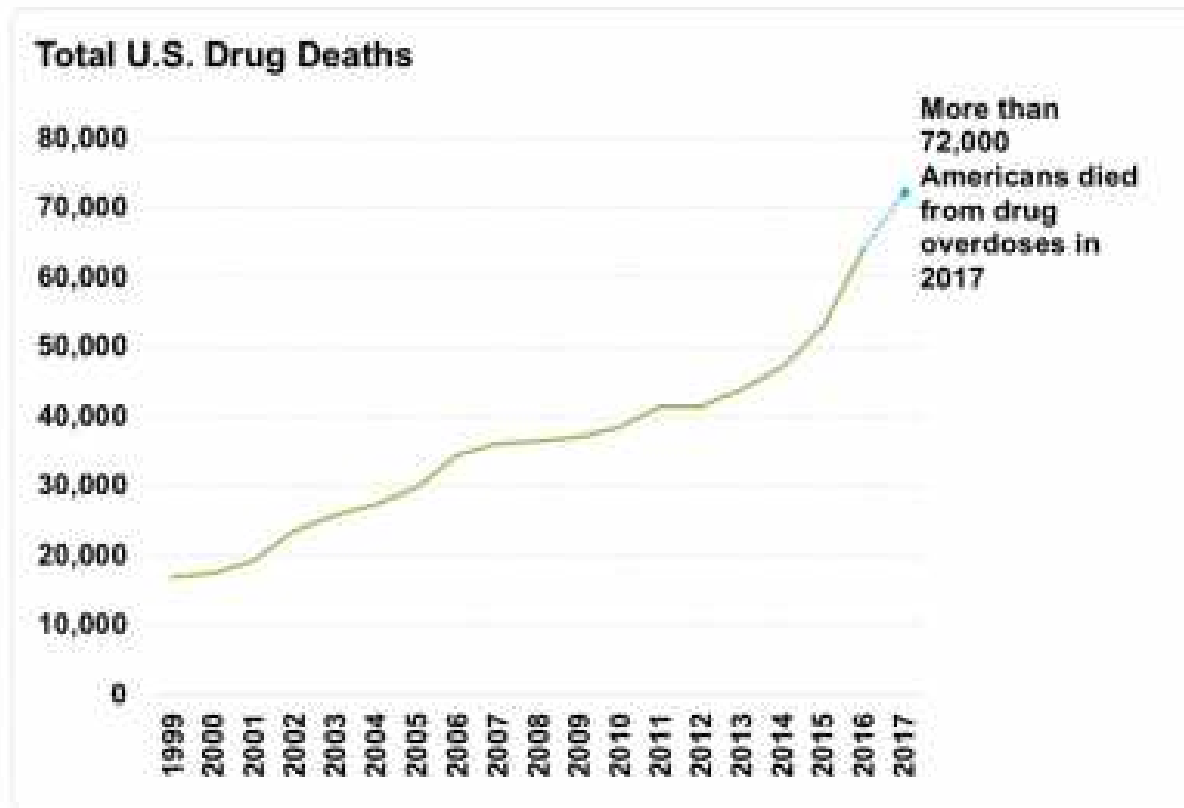
# OPIOID RELATED DEATH

- Opiates have the highest death rate of any psychoactive illicit-substance
- 
- The 2021 CDC report indicates **70,000 total Overdose deaths** , including **50,000 related to Opioids** (heroin, prescription drugs and increasingly Fentanyl)
  
- Mortality rate of opioid users 14 times that of general population
- 46% to 70% of opioid users experience one or more non-lethal overdoses during their lifetime
- Opiate users who were recently release from prison are at higher risk of overdose

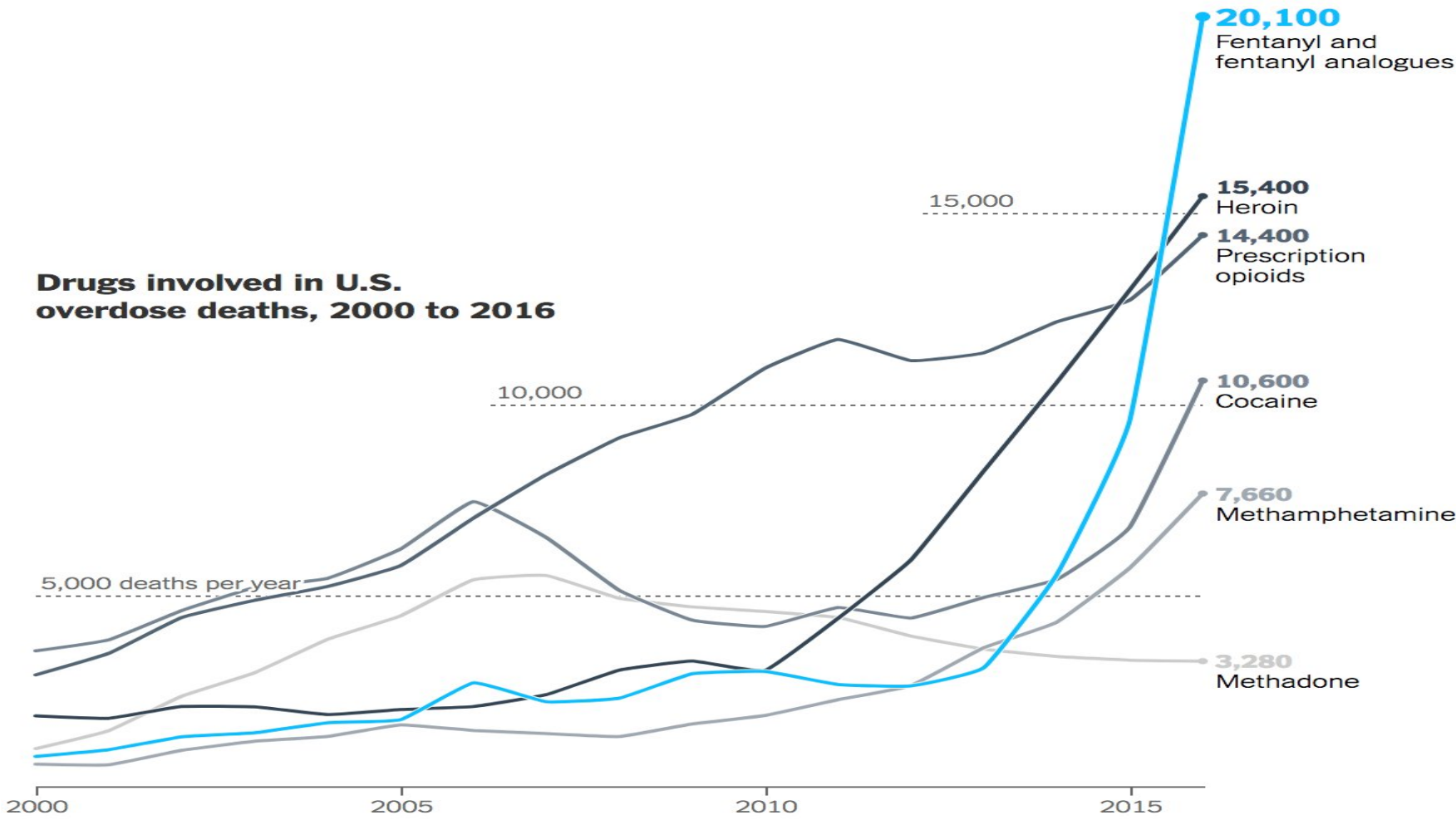
# Total U.S. Drug Deaths\* -

More than 72,000 Americans died from drug overdoses in 2017, including illicit drugs and prescription opioids—a 2-fold increase in a decade.

*Source: CDC WONDER*



# Fentanyl-Related Deaths Surpassed Heroin or Rx Opioids in 2016

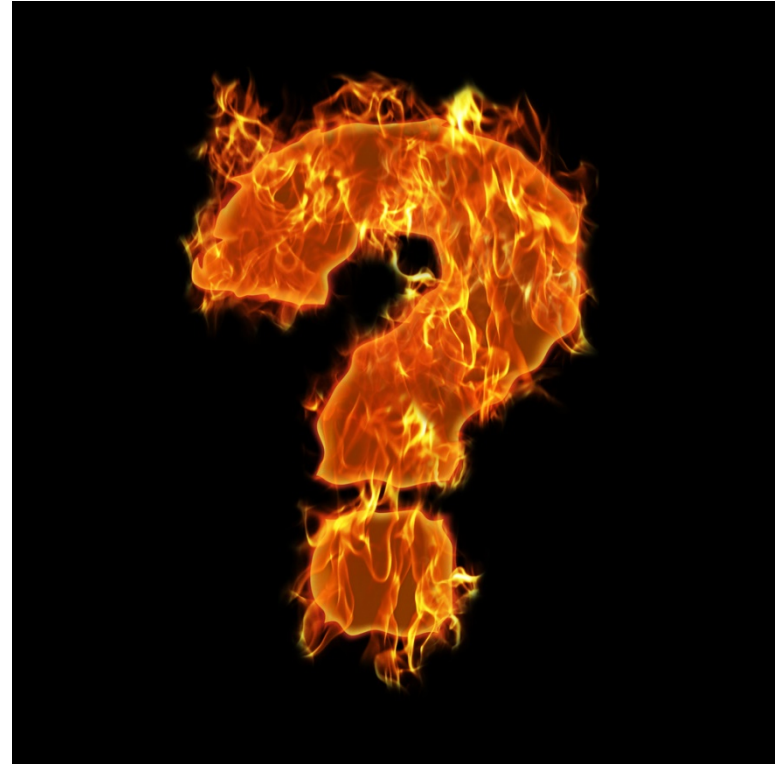


Graphs based on CDC MMWR report 2017 [CDCDCC MMWR Report](#)

# SUMMARY

- So far we know that
- 1. All of the key substances, but especially alcohol and opioids, when used heavily or as SUD's increase Suicide Risk 5-15 X
- Opioids, because of their inherent lethality pose the greatest risk in Suicides or OD's
- Both "accidental" OD deaths and Suicide Deaths have been increasing over the last 20 years

# **Suicide and SUDS: Determining Intent**



# ACCIDENTAL OVERDOSE, HEAVY USE USE OR PLANNED LETHALITY ?

FULLY ACCIDENTAL

JUST BLOT OUT WORRIES

WHO CARES IF I WAKE



# CAN ADDICTION TREATMENT AFFECT SUICIDALITY?

Cohort	suicide attempts	
	year prior	year after
<b>Adults</b>		
> 25 yo (n=3524)	23%.....	4%
18-24 yo (N=651)	28%.....	4%
<b>Adoles (n=236)</b>	23%.....	7%

**Karageorge: National Treatment Improvement Evaluation study 2001**  
**Substances- alcohol, cocaine, meth, cannabis**

# **Alcohol Consumption, Alcoholics Anonymous membership, and Suicide Mortality Rates, Ontario, 1968-1991.**

Mann RE, Zalcman RF, Smart RG, Rush BR, Suurvali H.

Method: We studied the impact of alcohol consumption levels, AA membership rates, and unemployment rates on suicide mortality rates in Ontario from 1968 to 1991.

Results:

**Total alcohol consumption was significantly and positively related to total and female suicide mortality rates.**

**AA membership rates were negatively related to total and female suicide rates.**

Stud. Alcohol 67: 445-453, 2006).

# CASE VIGNETTE-2

- She says she knows her drinking is killing her
- Wants to stop the pain and the drinking or at least cut it down
- How do you respond?
  - Drinking issues
  - Suicide issues
  - Medical/gastric issues

# Suicide /OD Screening

## --Common issues

Ever been seriously suicidal?

0 1 2+

*Ever when drinking*

0 1 2

Ever made a suicide attempt?

0 1 2+

*Ever when drinking ?*

0 1 2+

Last time was \_\_\_\_\_

Current suicidal thoughts/plans?

Yes No

*Current risk drinking /OD ?*

Yes NO

*Use Drink/OD to blot out Probs ?*

Yes No

Do you have a suicide plan?

Yes No

# VIGNETTE 3

Next she says

- >not suicidal in thought or plan now
- > recognizes she is at risk both suicide and drinking
- > sober before, a year ago

What now?

# INTERVENTIONS

- Alcohol
- Suicide
- Psychiatric
- Medical
- Inpatient/Outpatient
- Meds
  - Alcohol
  - Psych
  - Medical

## Comparison of the Safety Planning Intervention With Follow-up vs Usual Care of Suicidal Patients Treated in the Emergency Department.

Patients in the SPI+ condition were less likely to engage in suicidal behavior

**3.03% vs 5.29%** during the 6-month follow-up period.

The SPI+ had **45% fewer suicidal behaviors (P = .03)**

SPI+ had **double the odds of mental f/u health visit (P < .001)**

# SAFETY CARD ---YOURSELF OR OTHERS:

➤ **Warning signs** signal increased suicide risk and can be **direct** or **indirect**.

➤ **Direct Warning Signs**

**Suicidal communication** such as writing or talking about suicide

**Seeking access to suicide methods** such as buying a gun

**Stocking up lethal Drugs**

**Making preparations for death**  
- such as giving away prized possessions

**If observed, these signs require immediate action!**

➤ **Indirect Warning Signs**

1. Relapse or increase in **drug/alcohol use**
2. Increased **isolation/withdrawal** from others
3. **Hopelessness**
4. Talking about **being a burden** to others
5. Increased **anxiety, agitation**
6. Unable to **sleep** or sleeping all the time
7. Dramatic **changes in mood**/extreme mood swings
8. Feeling **trapped** – like there's no way out
9. **No reason for living**; no sense of purpose in life
10. **Rage, anger**, seeking **revenge**
11. Acting **reckless** or engaging in risky activities (seemingly without thinking)



## Step 1: Take Warning Signs seriously

## Step 2: Tell someone who can help

- Addiction or mental health counselor
- Doctor, social worker, nurse
- A trusted friend, family member, sponsor

### People I can call:

Name \_\_\_\_\_

# \_\_\_\_\_

Name \_\_\_\_\_

# \_\_\_\_\_

Name \_\_\_\_\_

# \_\_\_\_\_

Name \_\_\_\_\_

# \_\_\_\_\_

**National Suicide Prevention Lifeline  
1-800-273-8255**

**Washington Poison Center  
1-800-222-1222**

If you are worried about the person's immediate safety

- *Don't leave the person alone*
- **Call 911** or go to a local hospital or emergency room

## Step 3: Secure the environment

- Lock up firearms/give them to someone else for safekeeping
- Secure/monitor medications or pills that may be used to overdose
- Get rid of drugs and alcohol
- Naloxone Spray

# REFS

- Best review: Yuodelis-Flores “Addiction and Suicide”, Am J Addict. 2015
- American Foundation for Suicide Prevention <https://afsp.org/about-suicide/suicide-statistics/>
- Michael Bostwick, et al: Suicide Attempt as a Risk Factor for Completed Suicide: Even More Lethal Than We Knew. *American Journal of Psychiatry*, 2016
- CDC suicide risk  
<https://www.cdc.gov/violenceprevention/suicide/riskprotectivefactors.html>
- NIDA Overdose: <https://www.drugabuse.gov/news-events/news-releases/2018/05/nearly-half-opioid-related-overdose-deaths-involve-fentanyl>
- YoudelisFlores and Ries : Addiction and Suicide Am J Addictions 2015