



Maryland Addiction Consultation Service

1-855-337-MACS

www.marylandMACS.org



@Maryland_MACS



@MarylandMACS



Maryland Addiction Consultation Service (MACS)

Provides support to primary care and specialty prescribers across Maryland in the identification and treatment of Substance Use Disorders and chronic pain management.

All Services are FREE

- Phone consultation for clinical questions, resources, and referral information
- Education and training opportunities related to substance use disorders and chronic pain management
- Assist in the identification of addiction and behavioral health resources that meet the needs of the patients in your community
- Administered by UMB School of Medicine and funded by Maryland Department of Health, Behavioral Health Administration

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Mental Health Comorbidity with Substance Use Disorders



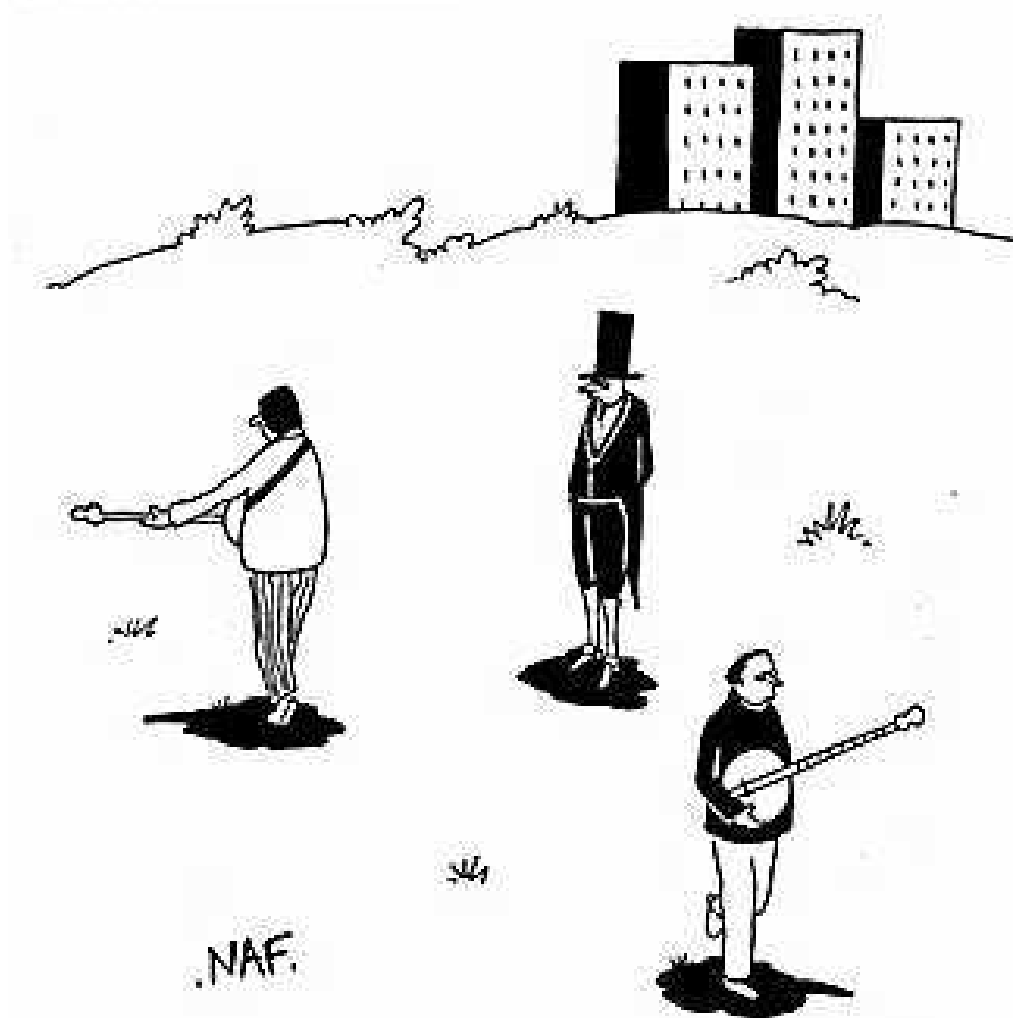
Christopher Welsh M.D.

Associate Professor
Department of Psychiatry
University of Maryland School of Medicine

TERMS

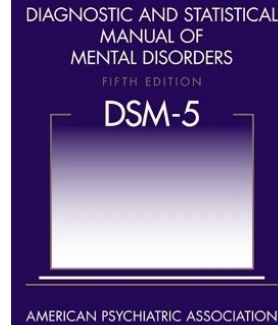
“DUEL DIAGNOSIS”

Dual Diagnosis
Dual Disordered
MICA
MICD
MISA
MISU
CAMI
SAMI
Comorbidity
COD
Double Trouble
Triple Diagnosis
ICOPSD
“SASI”



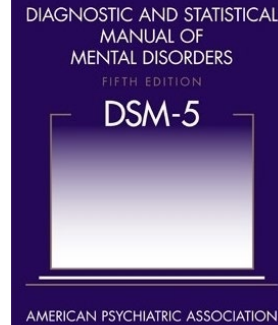
DUELING BANJOS

DSM-5 CLASSIFICATION



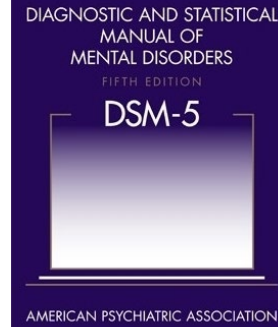
- Neurodevelopmental Disorders
- Schizophrenia Spectrum and Other Psychotic Disorders
- Bipolar and Related Disorders
- Depressive Disorders
- Anxiety Disorders
- Obsessive-Compulsive & Related Disorders
- Trauma & Stress Related DOs

DSM-5 CLASSIFICATION



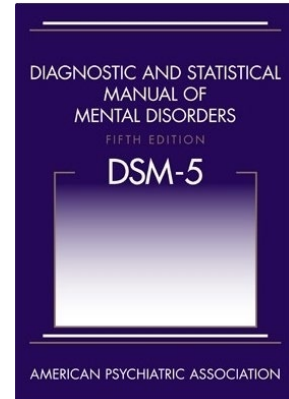
- Dissociative Disorders
- Somatic Symptom Disorders
- Feeding and Eating Disorders
- Elimination Disorders
- Sleep-Wake Disorders
- Sexual Dysfunctions
- Gender Dysphoria
- Disruptive, Impulse Control & Conduct DOs

DSM-5 CLASSIFICATION



- Substance Related & Addictive Disorders
- Neurocognitive Disorders
- Personality Disorders
- Paraphilic Disorders
- Other Mental Disorders
- Medication-Induced Movement Disorders
& Other Adverse Effects of Medication

SUDs in DSM-5

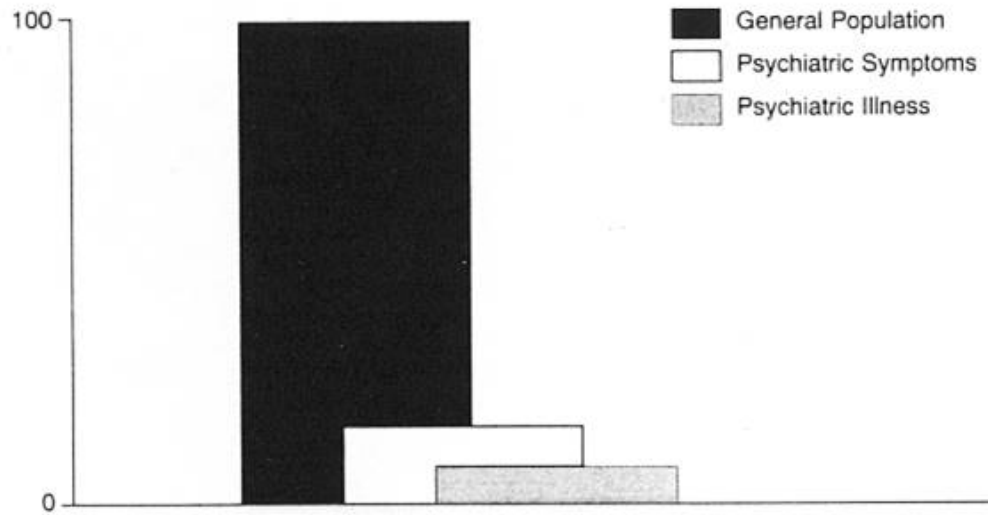


DSM-5 (2013)

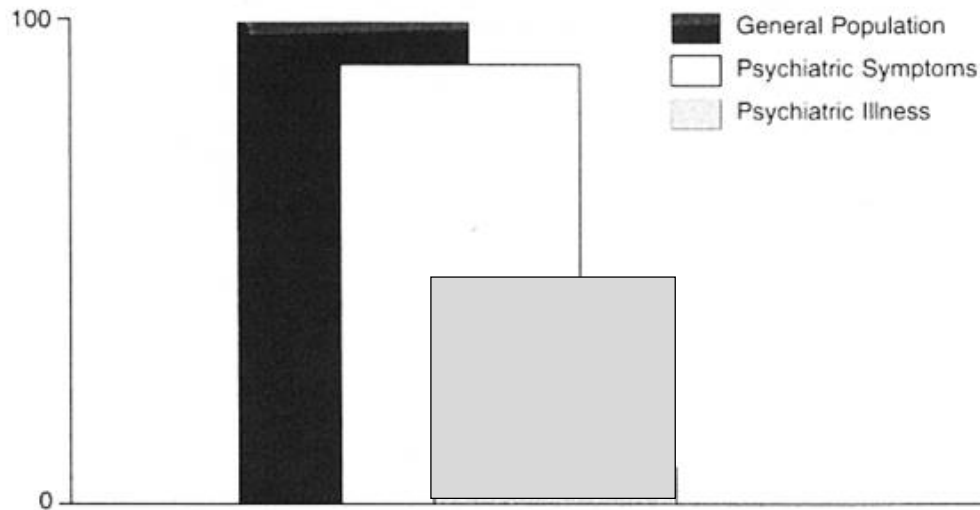
- Renamed the category Substance-Related and Addictive Disorders in order to include Gambling Disorder (previously “Pathological Gambling” in Impulse Control Disorder Section of DSM-IV).
- Classified all Substance-Related Disorders together as:
 - 1) Substance Use Disorders
 - 2) Substance Induced Disorders
- The distinction between Substance Abuse and Dependence, present since DSM-III, was eliminated.

NON-SUBSTANCE “ADDICTIONS”

- Internet Gaming- in Section III (“Conditions for Further Study”)
- Sex- dropped from Section III in final version
- Eating- can be included in Feeding & Eating Disorders
- Collecting- Hoarding Disorder added
- Shopping- not included
- Exercise- not included
- Internet – not included

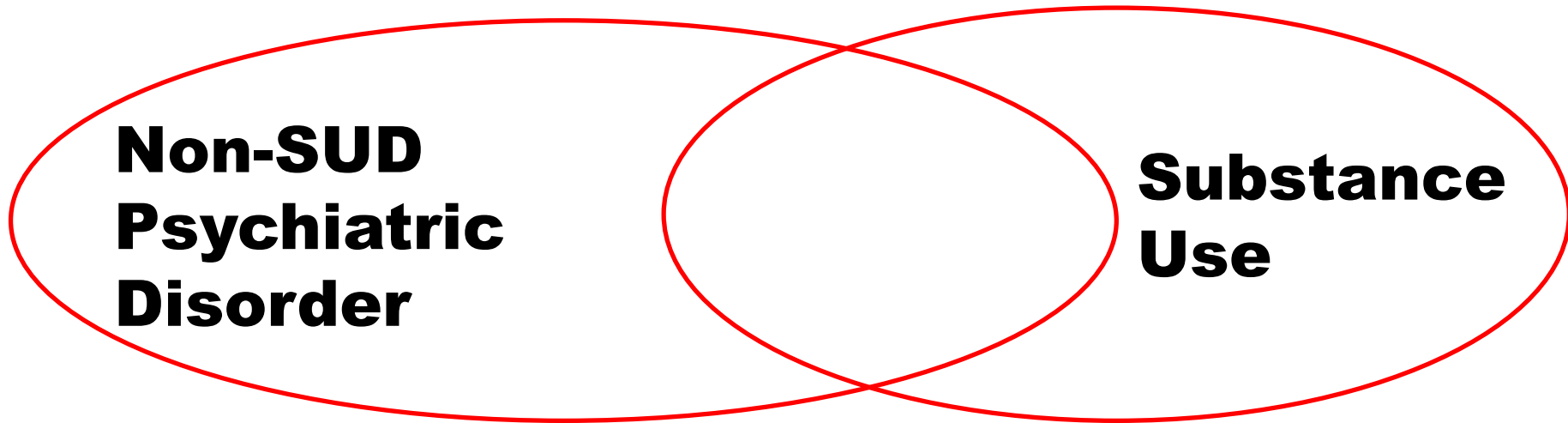


The prevalence of psychiatric illness and symptoms in the general population.



The prevalence of psychiatric illness and symptoms in the chemically dependent

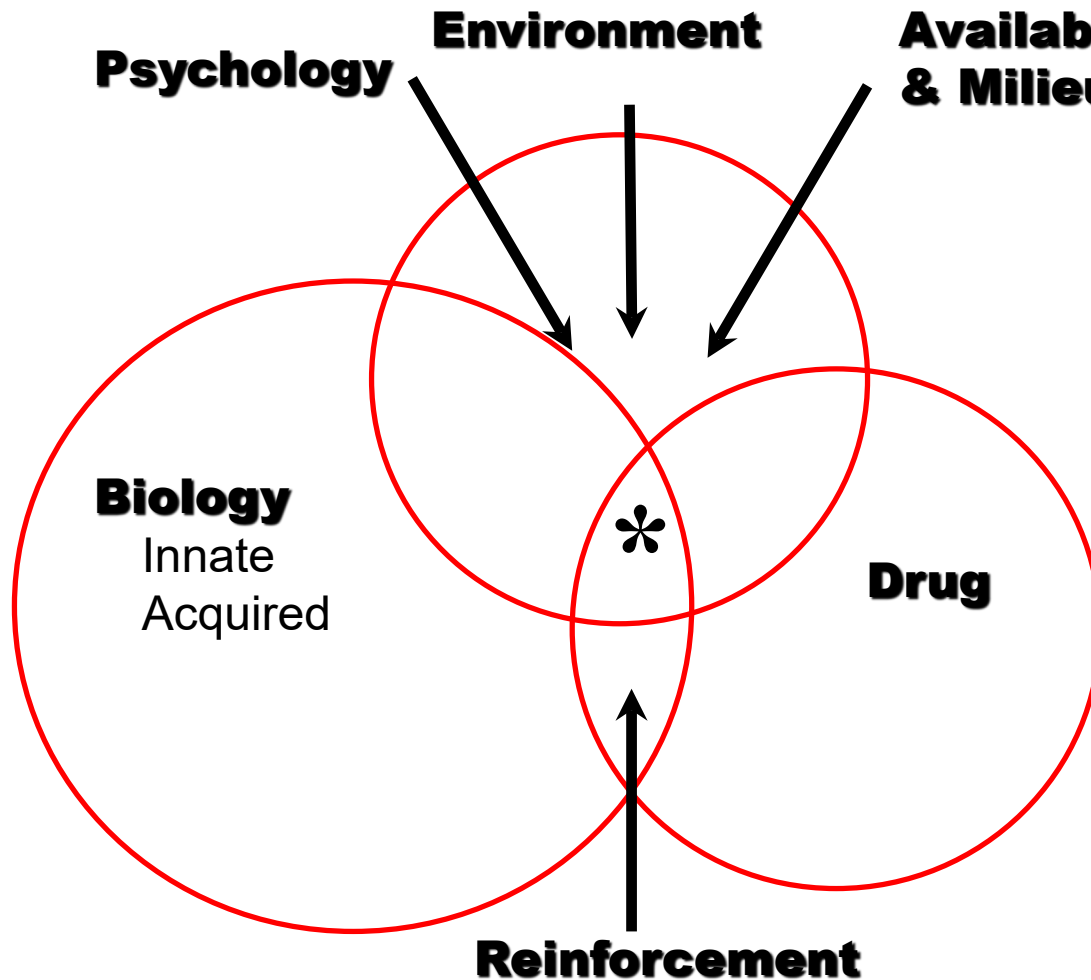
PSYCHIATRIC SXS & SUBSTANCE USE



**Non-SUD
Psychiatric
Disorder**

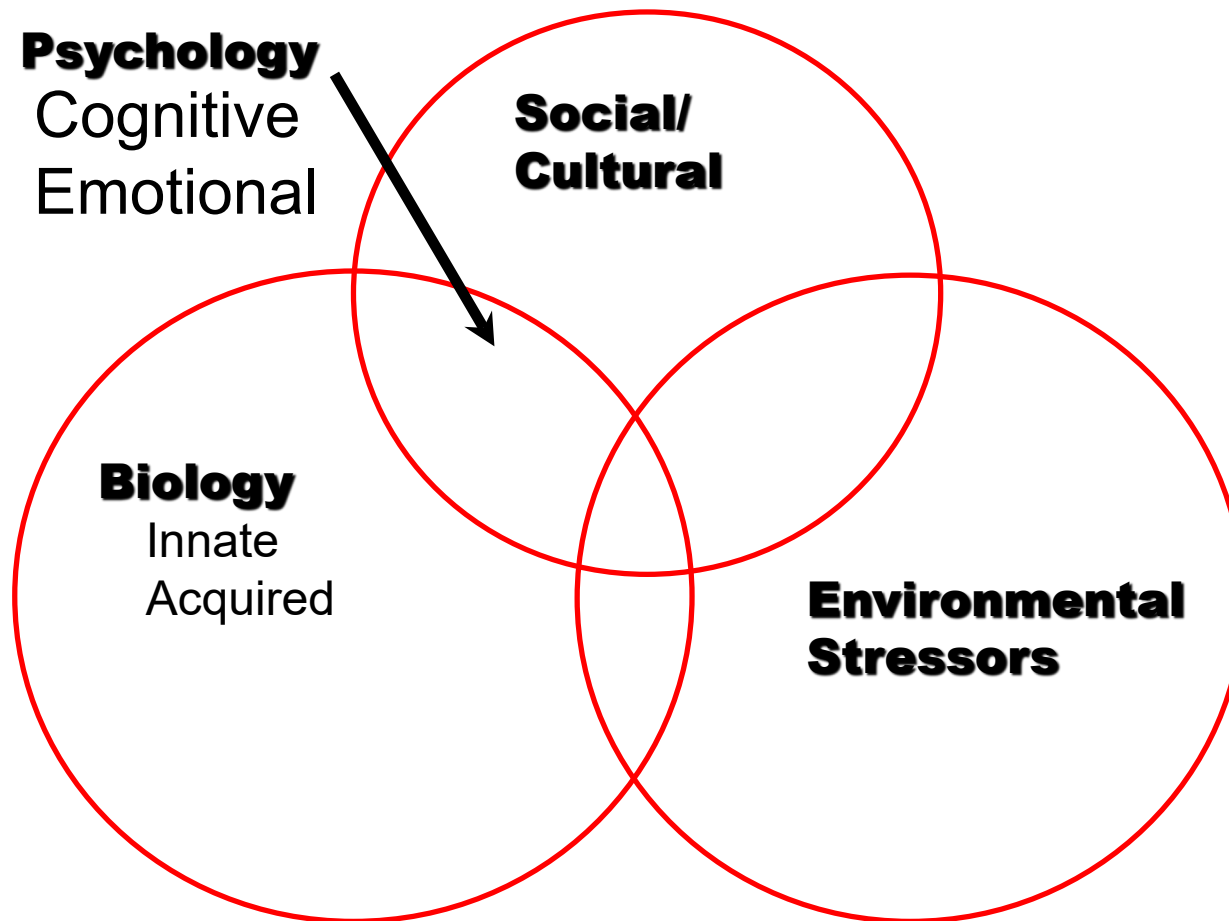
**Substance
Use**

SUBSTANCE USE DISORDER: MULTI-FACTORIAL DISORDER(S)



*Manifestation
of the disease
of addiction

PSYCHIATRIC DISORDERS: MULTI-FACTORIAL DISORDERS



SUDs & "AXIS I" DOs: A MESS

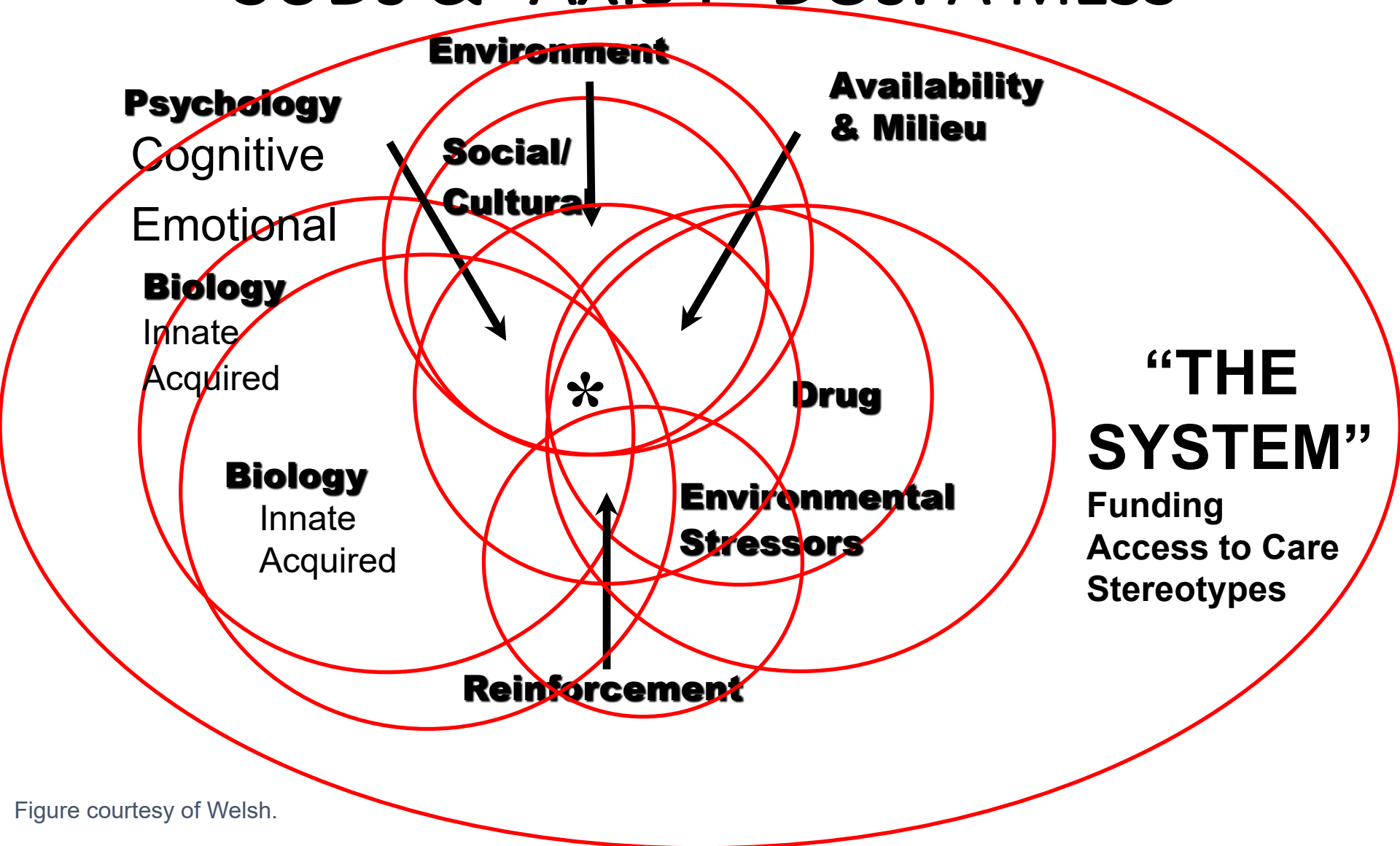


Figure courtesy of Welsh.

PAIN:

MULTI-FACTORIAL EXPERIENCE

Psychology

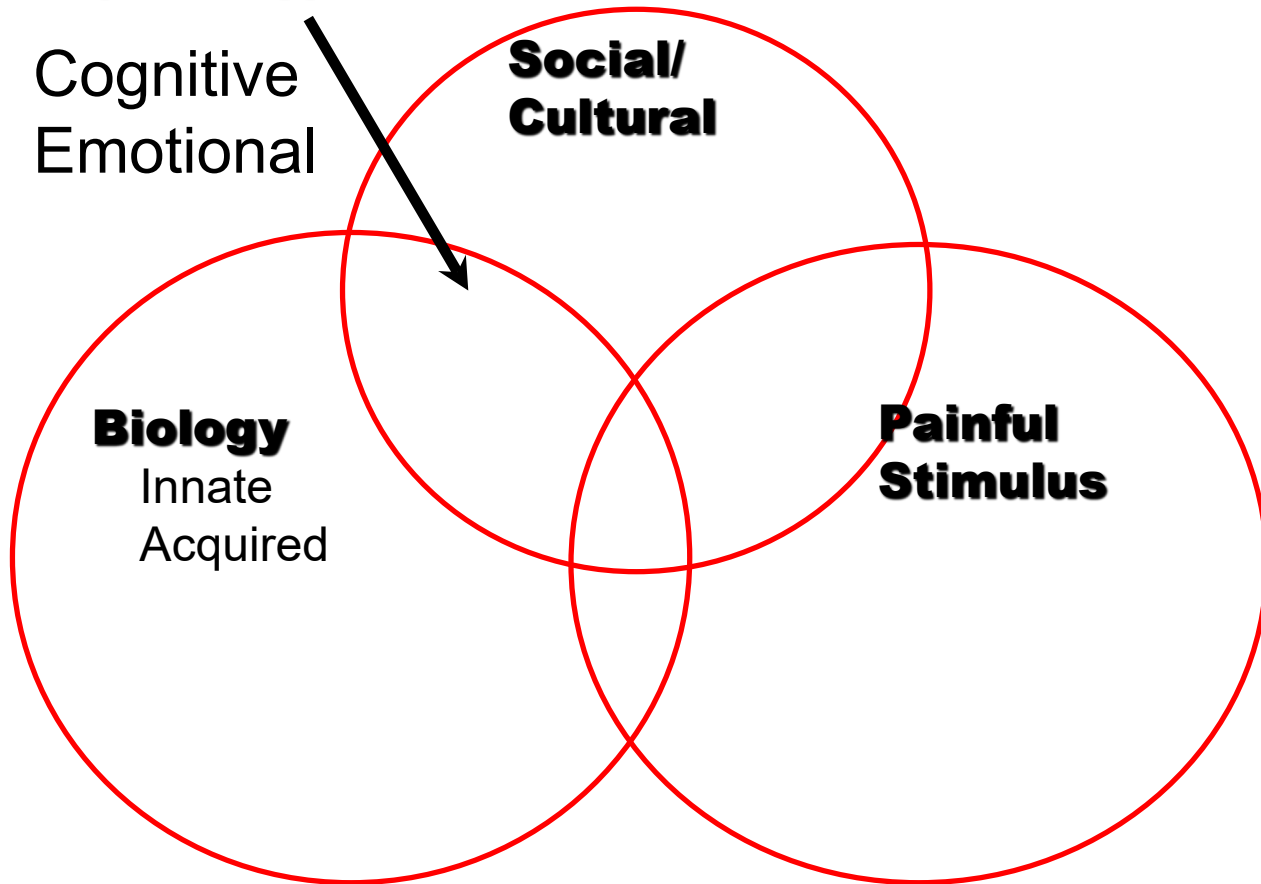
Cognitive
Emotional

**Social/
Cultural**

Biology

Innate
Acquired

**Painful
Stimulus**



SUDs, AXIS I DOs & PAIN: A BIGGER MESS

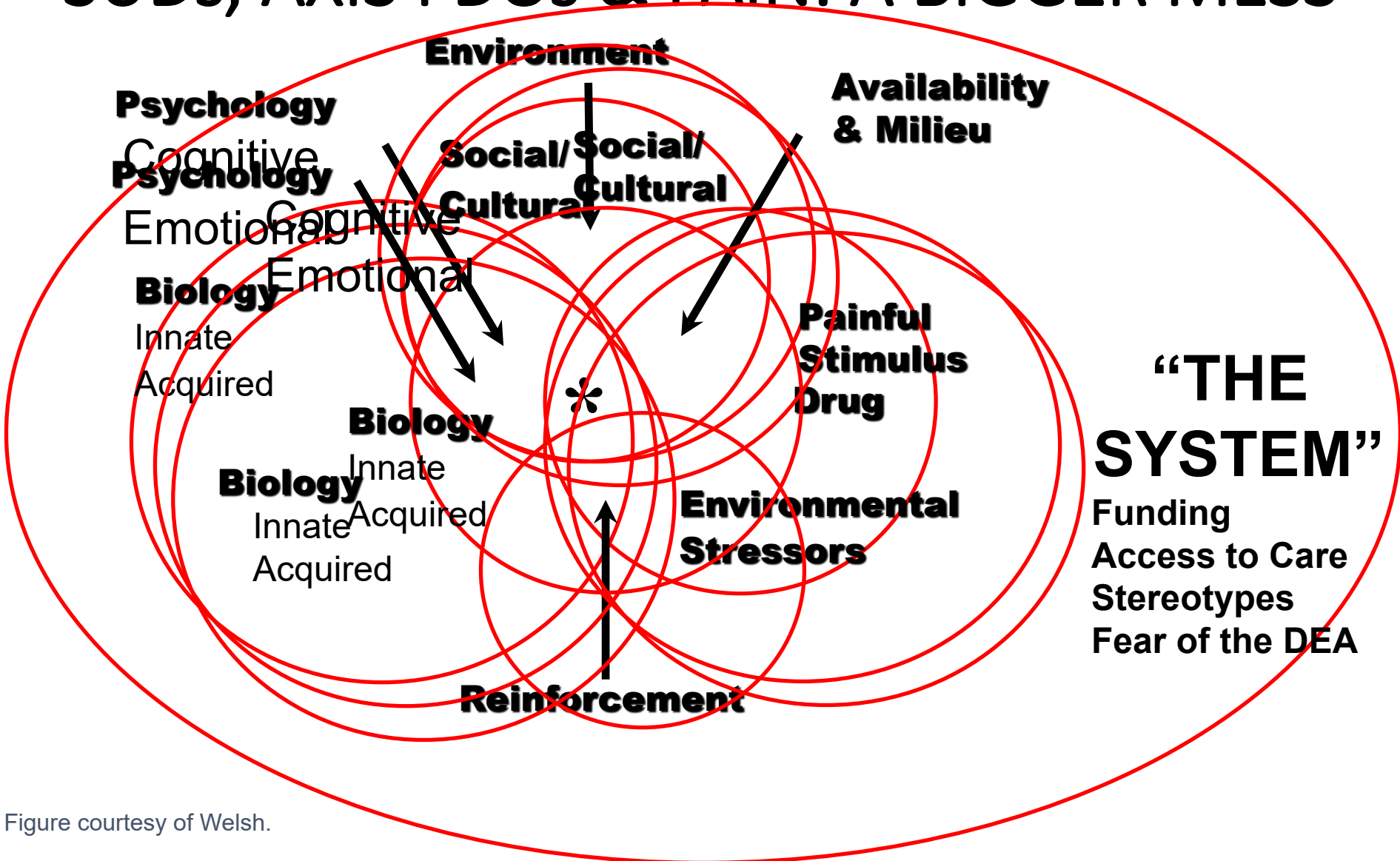
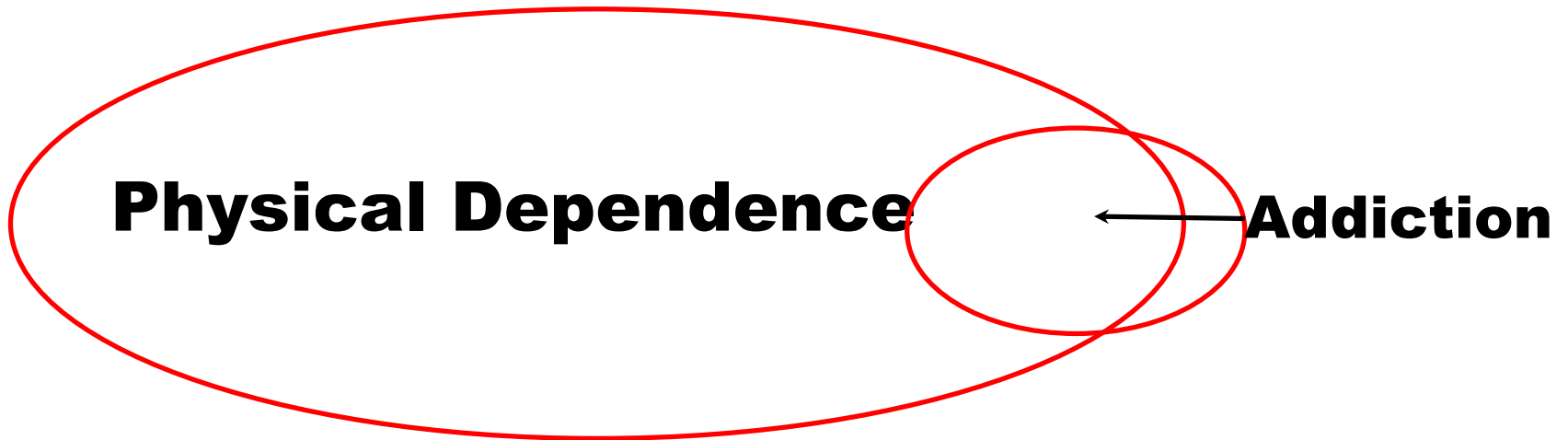


Figure courtesy of Welsh.

PHYSICAL DEPENDENCE & SUD

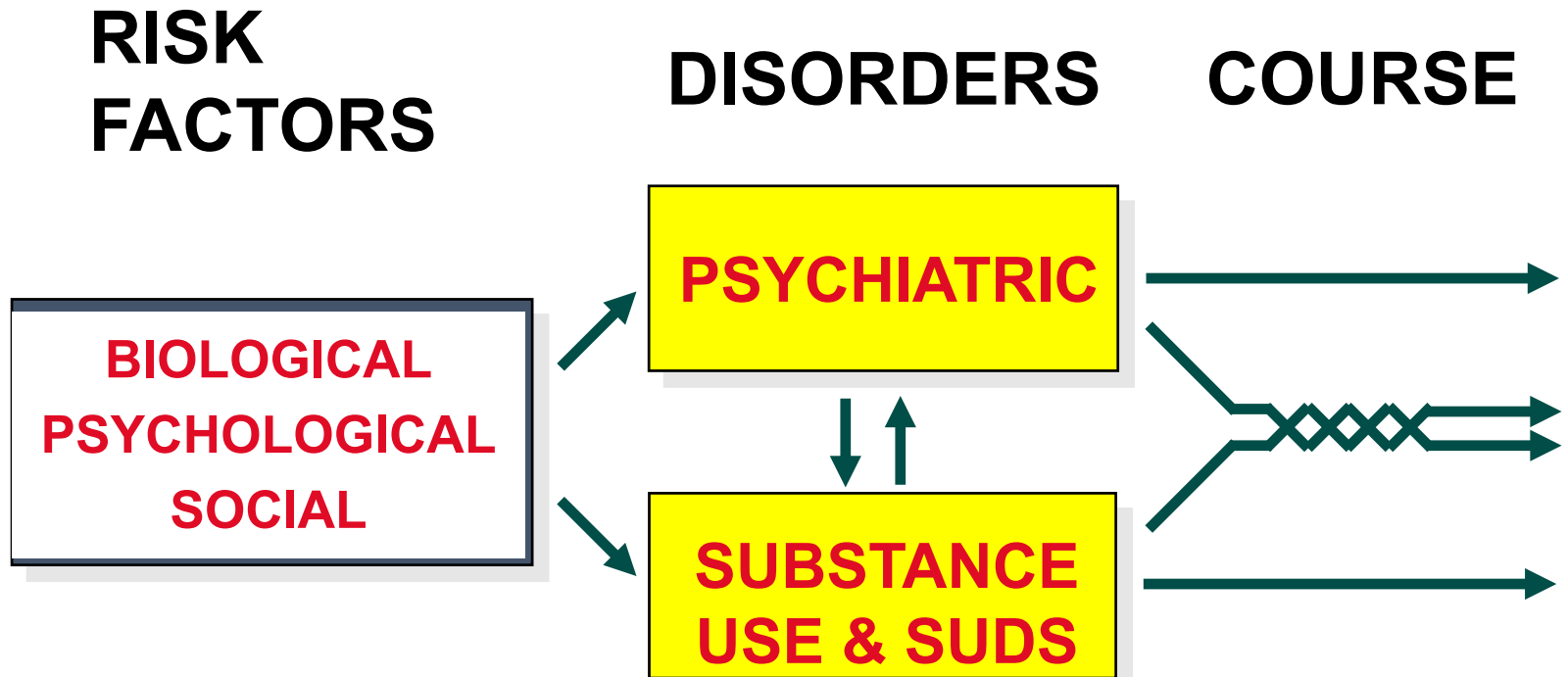


MODELS OF COMORBIDITY

- Common Factor models
 - genetic predisposition
 - sensation-seeking/impulsivity
 - ASPD/CD/ADHD
 - other
- Primary Psychiatric DO models
 - self-medication
 - supersensitivity/reward deficiency
- Primary SUD models
 - causality
 - increased vulnerability

THE CHALLENGE OF COMORBIDITY

NATURAL HISTORY



RELATION OF PSYCHIATRIC SXS TO SUBSTANCE USE

- Substance use and psychiatric disorder co-occur by “coincidence” (or as yet unknown connection)
- Substance use causes psychiatric condition
- Substance use increases severity of psychiatric sxs
- Psychiatric disorder causes increase in substance use
- Substance abuse results from treatment of a psychiatric condition
- Both disorders are caused by another condition
- Substance intoxication and withdrawal cause symptoms that mimic a psychiatric disorder

IMPACT OF COMORBIDITY ON PATIENT

- Symptom exacerbation
- Decreased compliance with medications
- Increased psychiatric hospitalizations
- Increased disruptive/violent behavior
- Decreased social functioning
- Increased medical problems

DIAGNOSIS

Observation of symptoms during a period of abstinence

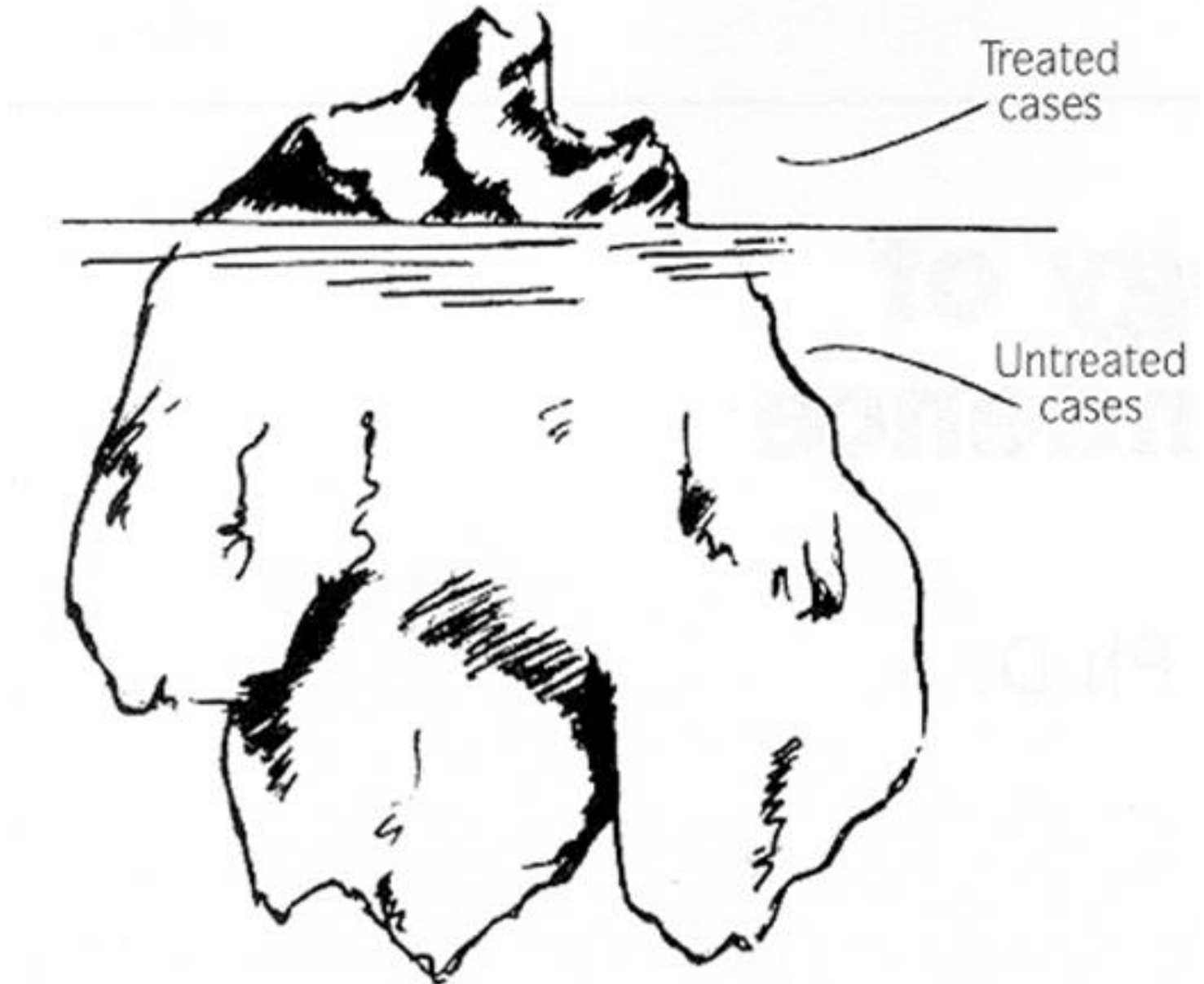
- amount of time necessary varies with substance and psychiatric condition

Family History of psychiatric disorder

- difficult if relative also with substance use disorder

Clear onset of psychiatric symptoms prior to significant substance use

- difficult with psychiatric disorders with later age of onset or early onset substance use





COMORBIDITY: SELECT STUDIES

	ECA, %	NCS, %	NLAES, %	NESARC, %	NCS-R, %
Current					
Any AUD	4.8	9.7	7.4	8.5	4.4
Alcohol abuse	1.9	2.5	3	4.7	3.1
Alcohol dependence	2.8	7.2	4.4	3.8	1.3
Any DUD	2	3.6	1.5	2	1.8
Drug abuse	0.9	0.8	1.1	1.4	1.4
Drug dependence	1.2	2.8	0.5	0.6	0.4
Lifetime					
Any AUD	13.5	23.5	18.2	30.3	18.6
Alcohol abuse	5.6	9.4	4.9	17.8	13.2
Alcohol dependence	7.9	14.1	13.3	12.5	5.4
Any DUD	6.1	11.9	6.1	13.8	10.9
Drug abuse	2.6	4.4	3.1	10.6	7.9
Drug dependence	3.5	7.5	2.9	3.3	3

Note. ECA=Epidemiologic Catchment Area; NCS=National Comorbidity Survey; NCS-R=National Comorbidity Survey Replication; NESARC=National Epidemiologic Survey on Alcohol and Related Conditions; NLAES=National Longitudinal Alcohol Epidemiologic Survey.

SUD & PSYCHIATRIC COMORBIDITY

Epidemiologic Catchment Area study (ECA)

-1980-1984

-NIMH sponsored

-DSM III

-45% of people with an alcohol use disorder & 72% of people with a drug use disorder had at least one co-occurring psychiatric disorder

SUD & PSYCHIATRIC COMORBIDITY(ECA)

<u>Disorder</u>	<u>% with substance use disorder</u>
Schizophrenia	50%
Major Depression	18%
Bipolar Disorder	56%
Panic Disorder	36%
Any Anxiety Disorder	36%
PTSD	30-50%
ADHD	23%
Antisocial Personality DO	60-80%



SUD & PSYCHIATRIC COMORBIDITY

National Epidemiologic Survey on Alcohol & Related Conditions (NESARC)

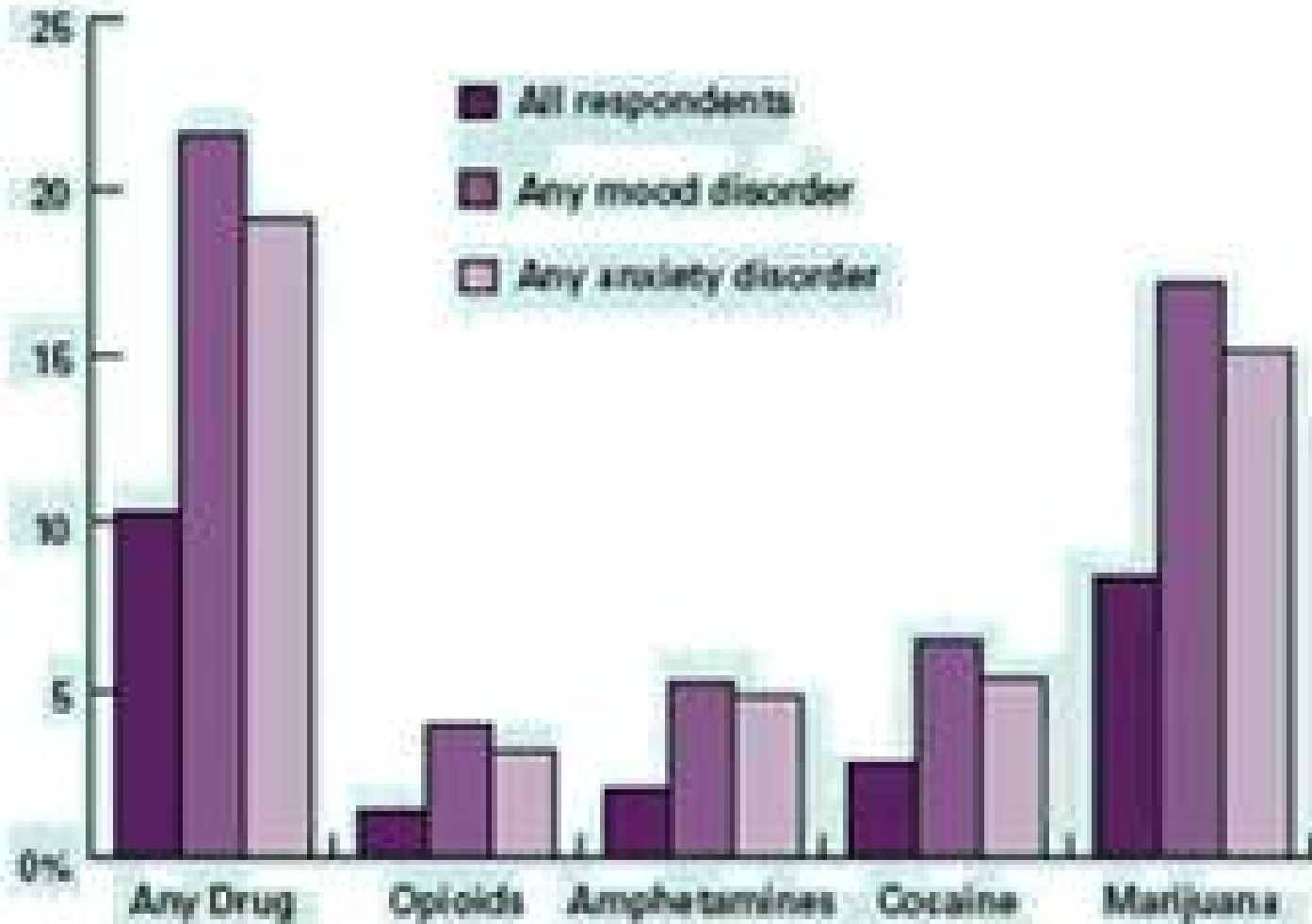
- 2001-2002; 2003-2004
- DSM IV-TR
- >40,000 interviewed
- Conducted by NIAAA
- included institutionalized
- better job at teasing out substance-induced
- 12-month prevalence

SUD & PSYCH COMORBIDITY (NESARC)

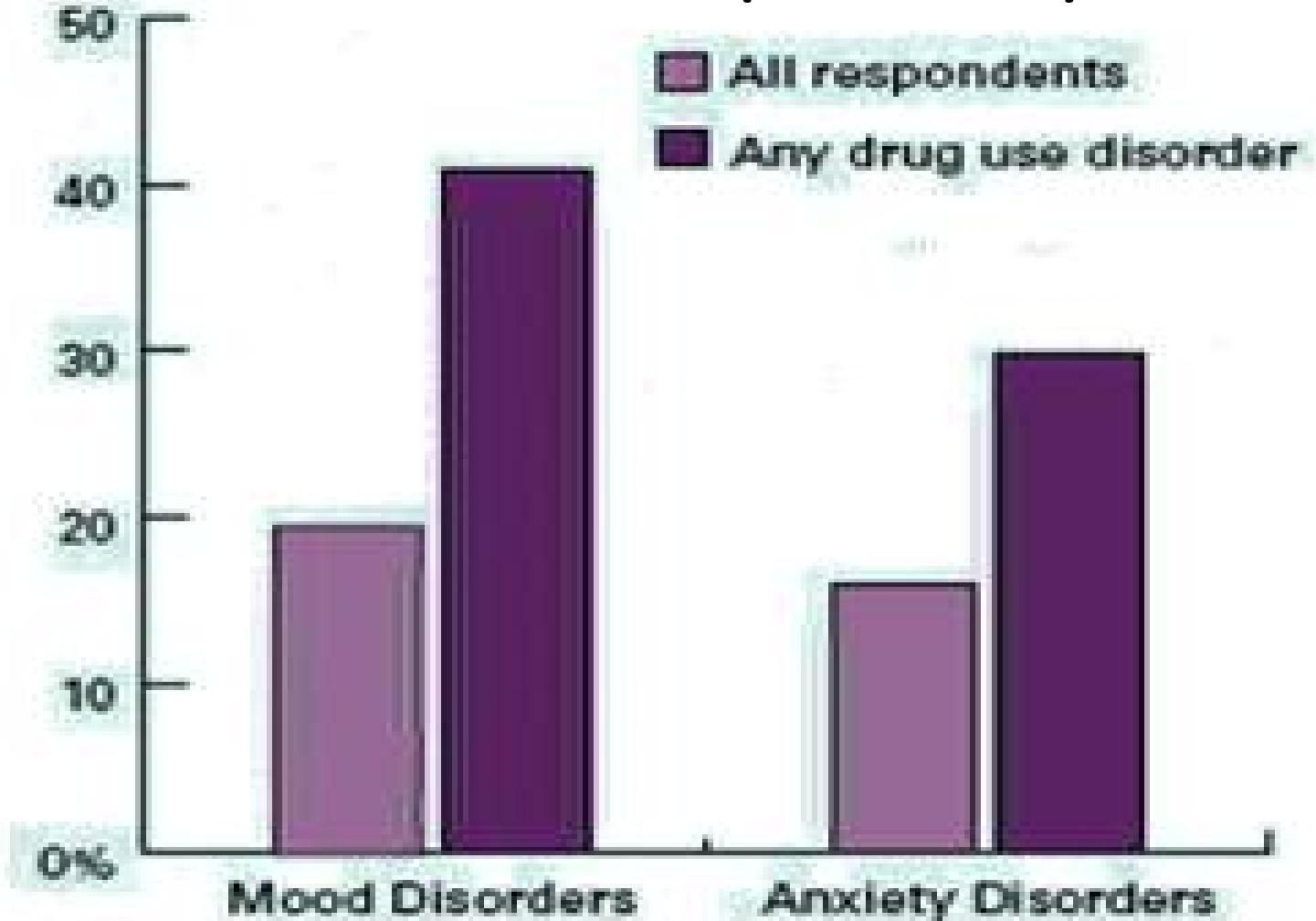
<u>Disorder</u>	<u>% with SUD</u>	<u>OR*</u>
Any Mood Disorder	20%	2.8
Major Depression	15%	2.5
Dysthymia	1.9%	2.2
Mania	5%	3.9
Any Anxiety Disorder	17.7%	1.9
Panic Disorder	2%	2.6
Social Phobia	4.7%	1.9
Specific Phobia	10.5%	1.6
GAD	4.2%	2.3

*compared to those without SUD

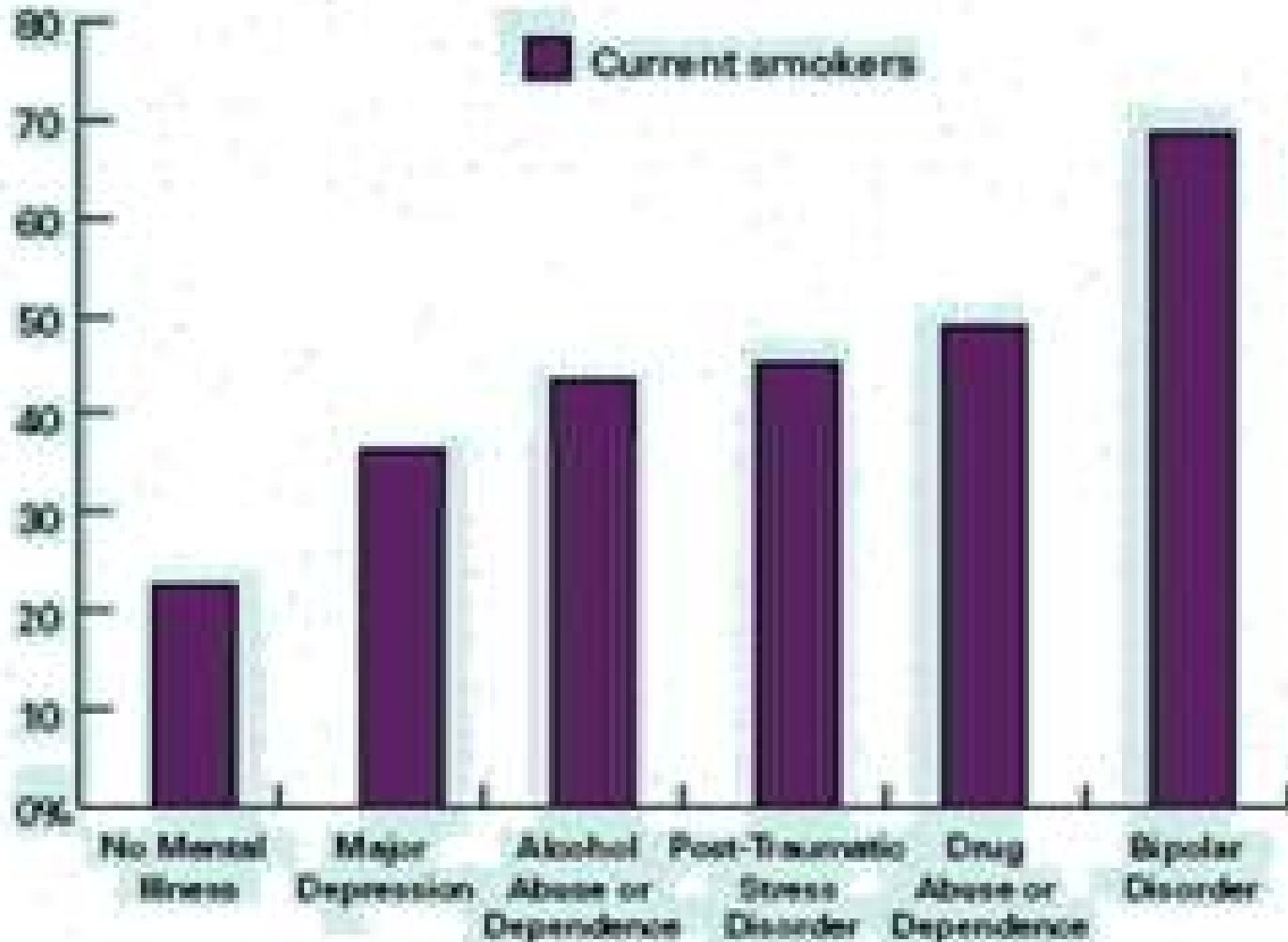
SUDs AMONG INDIVIDUALS W MOOD & ANXIETY DISORDERS (NESARC)



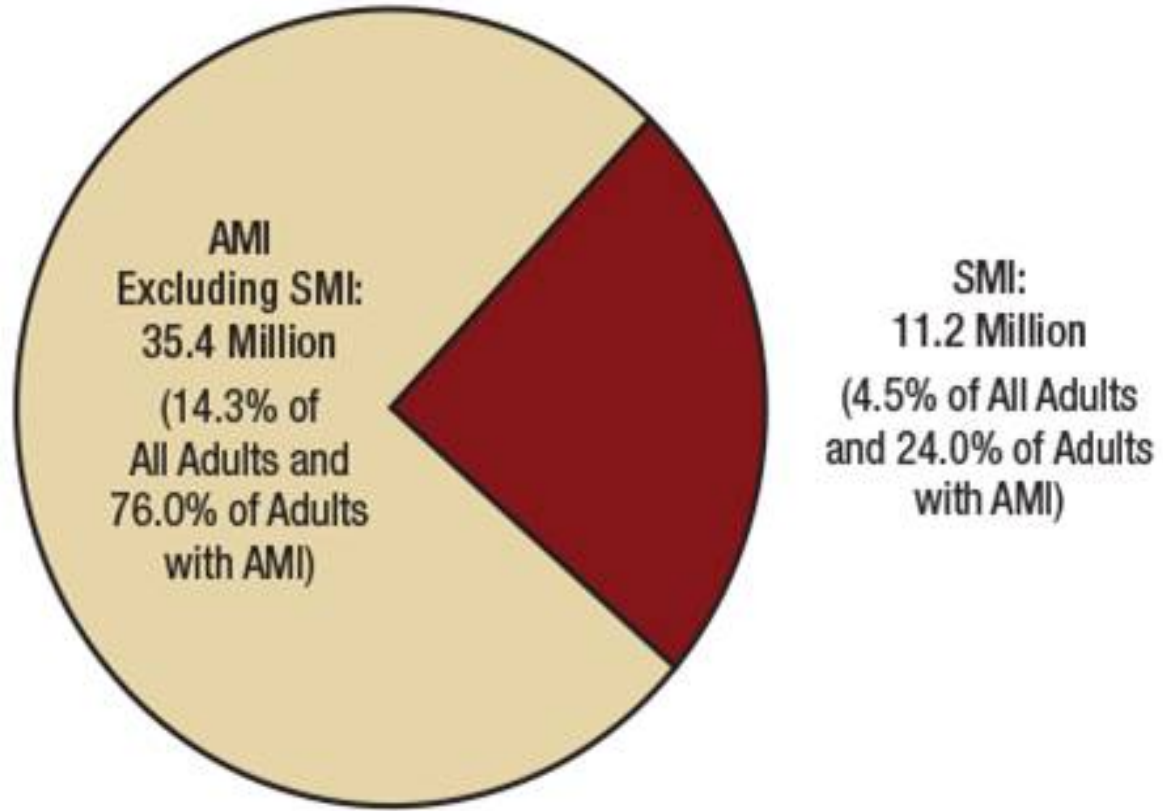
MENTAL DISORDERS AMONG PATIENTS WITH SUDS (NESARC)



SMOKING AMONG PATIENTS WITH MENTAL DISORDERS(NESARC)

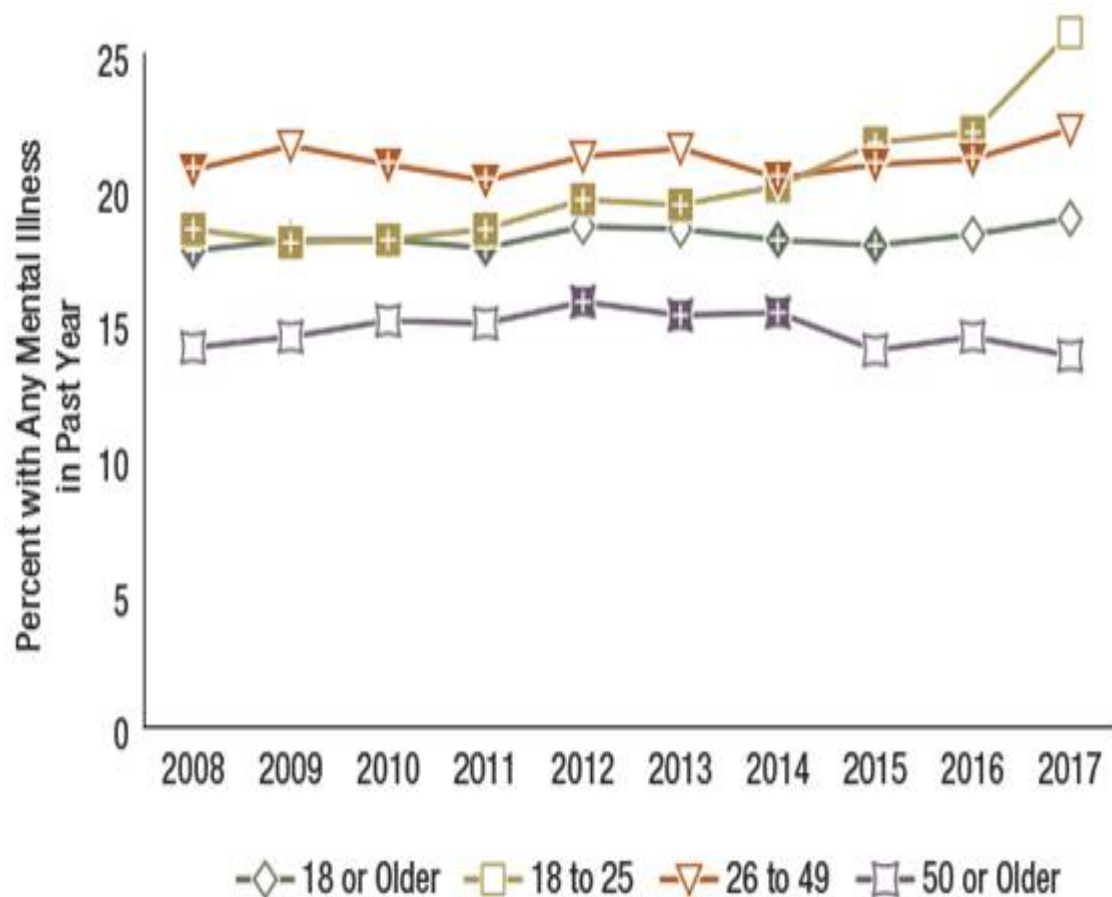


Any Mental Illness (AMI), Serious Mental Illness (SMI), and AMI Excluding SMI in the Past Year among Adults Aged 18 or Older: 2017

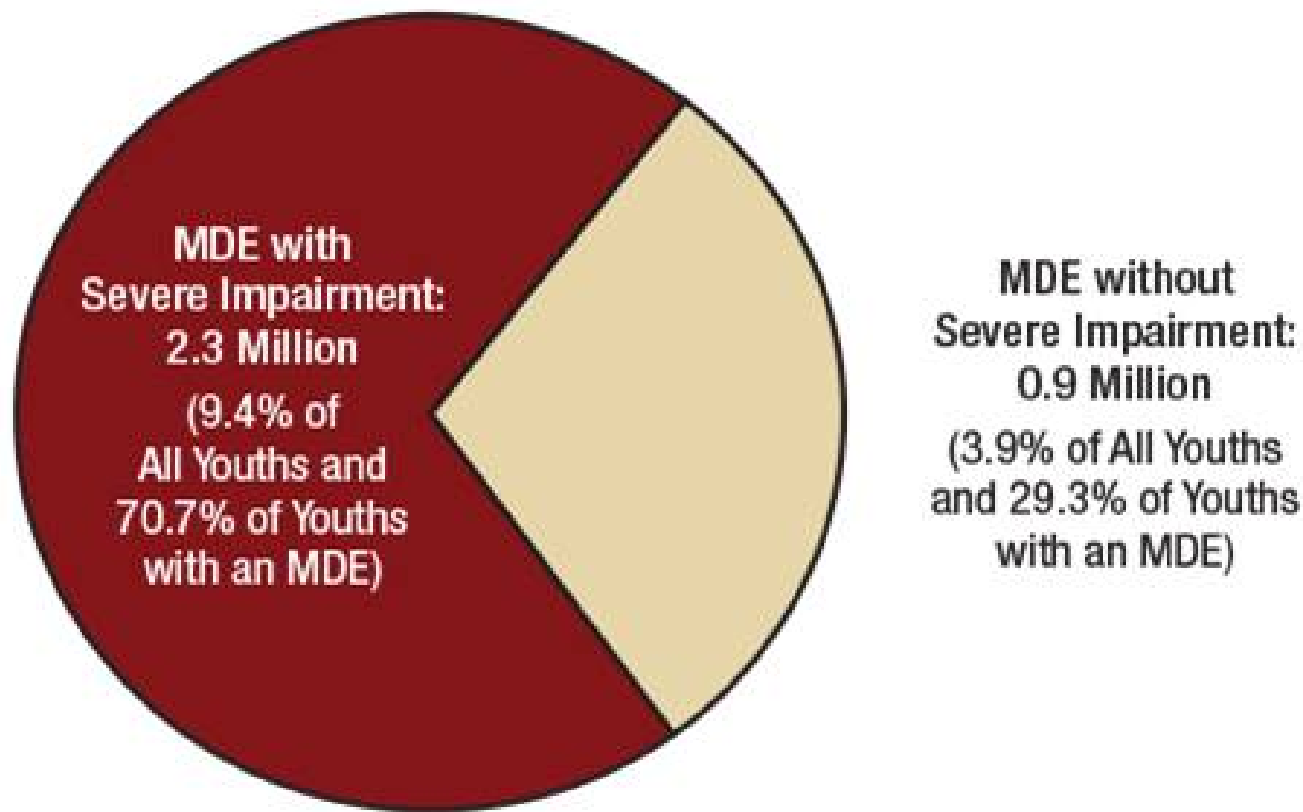


46.6 Million Adults with AMI in the Past Year (18.9% of All Adults)

Any Mental Illness in the Past Year among Adults Aged 18 or Older, by Age Group: %, 2008-2017



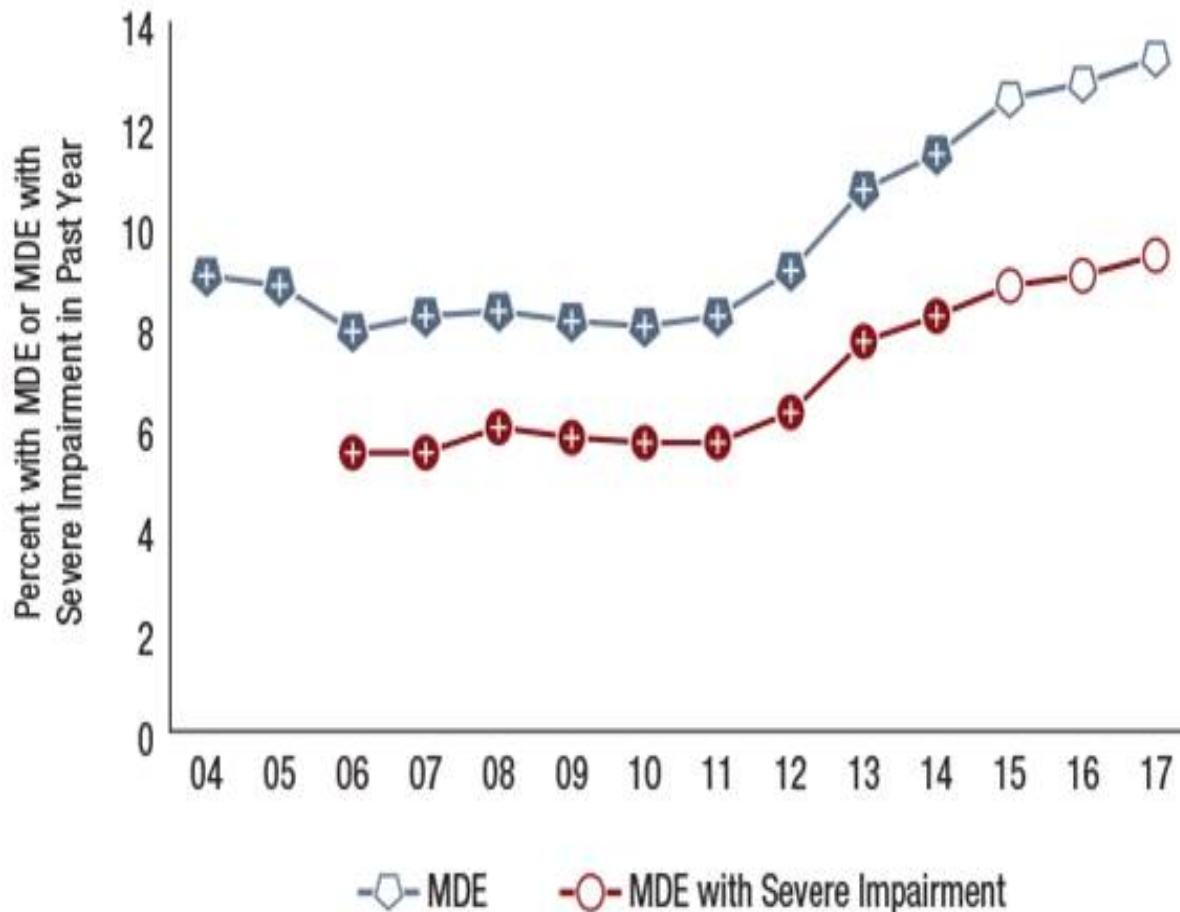
Major Depressive Episode (MDE) and MDE with Severe Impairment in the Past Year among Youths Aged 12 to 17: 2017



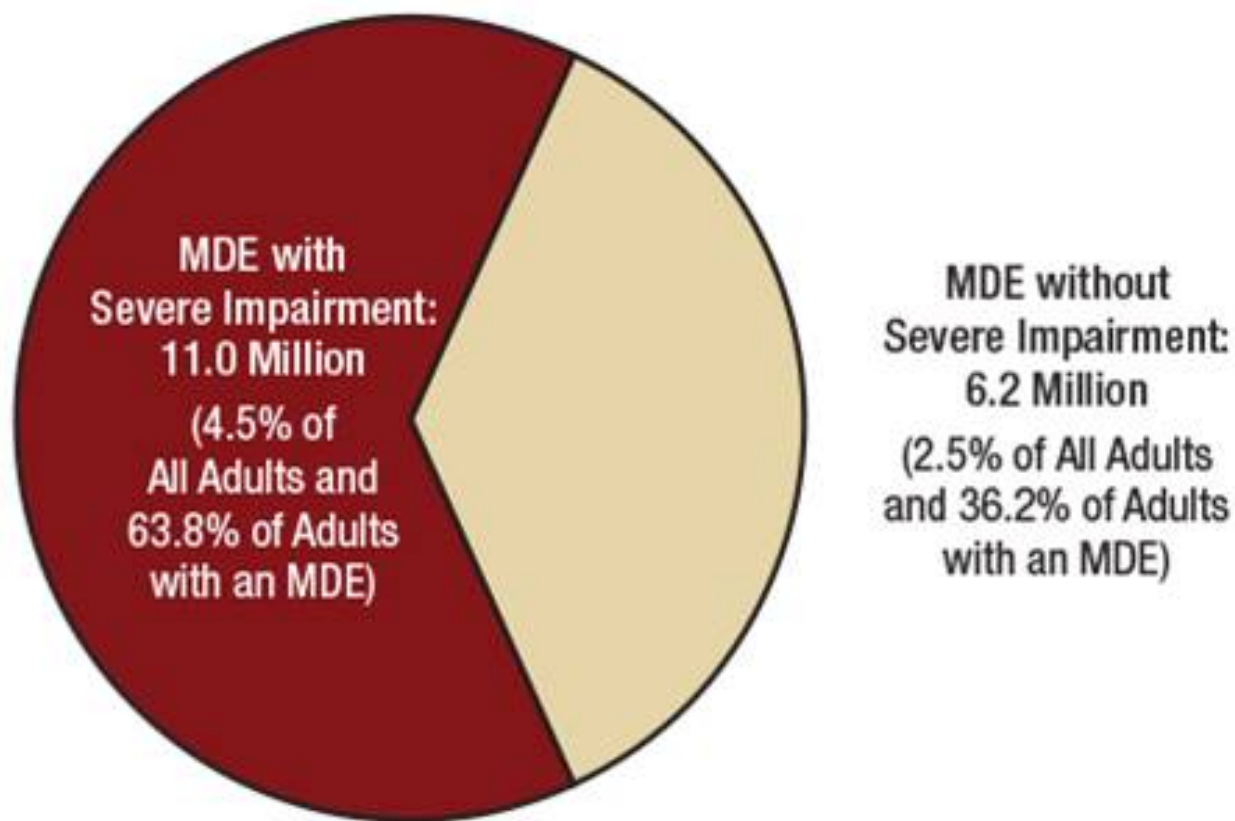
3.2 Million Youths with a Past Year MDE (13.3% of All Youths)

MACS

Major Depressive Episode (MDE) and MDE with Severe Impairment in the Past Year among Youths Aged 12 to 17: Percentages, 2004-2017

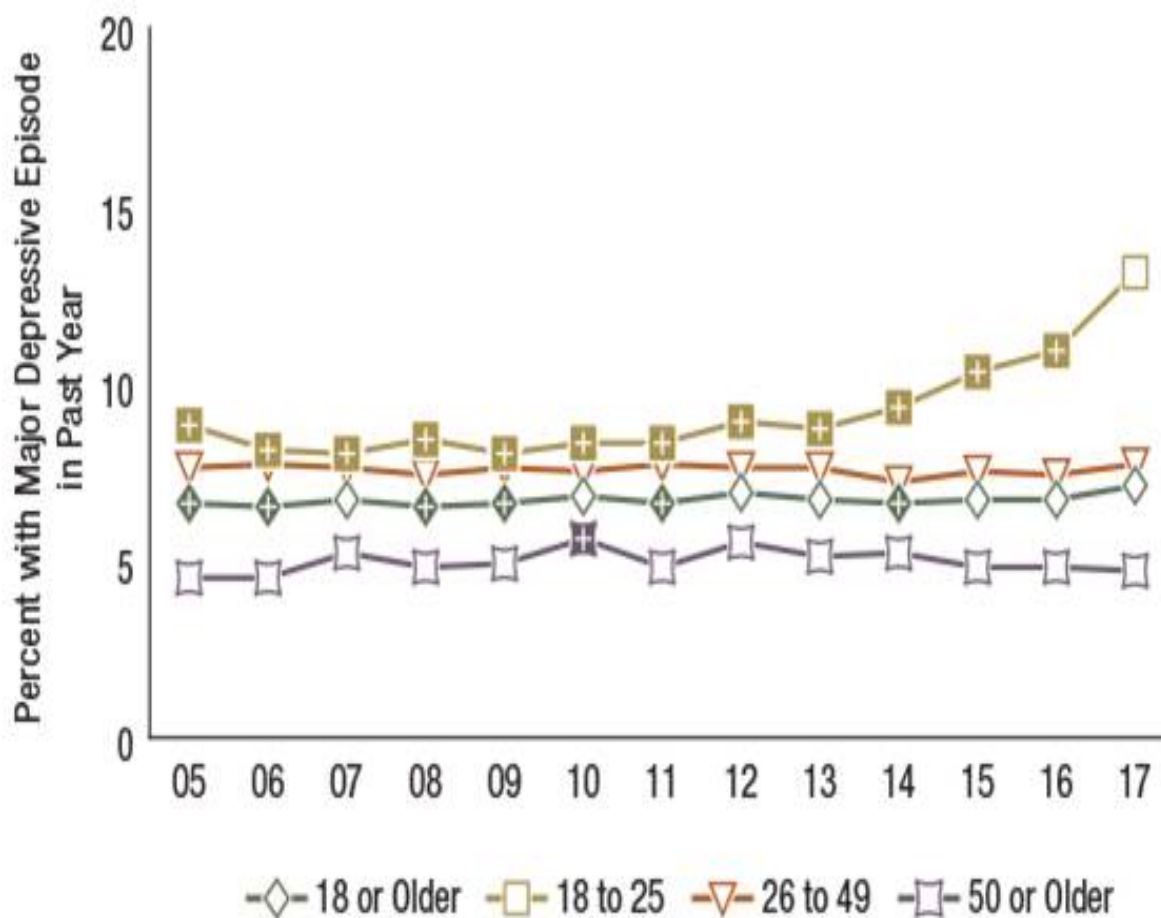


Major Depressive Episode (MDE) and MDE with Severe Impairment in the Past Year among Adults Aged 18 or Older: 2017

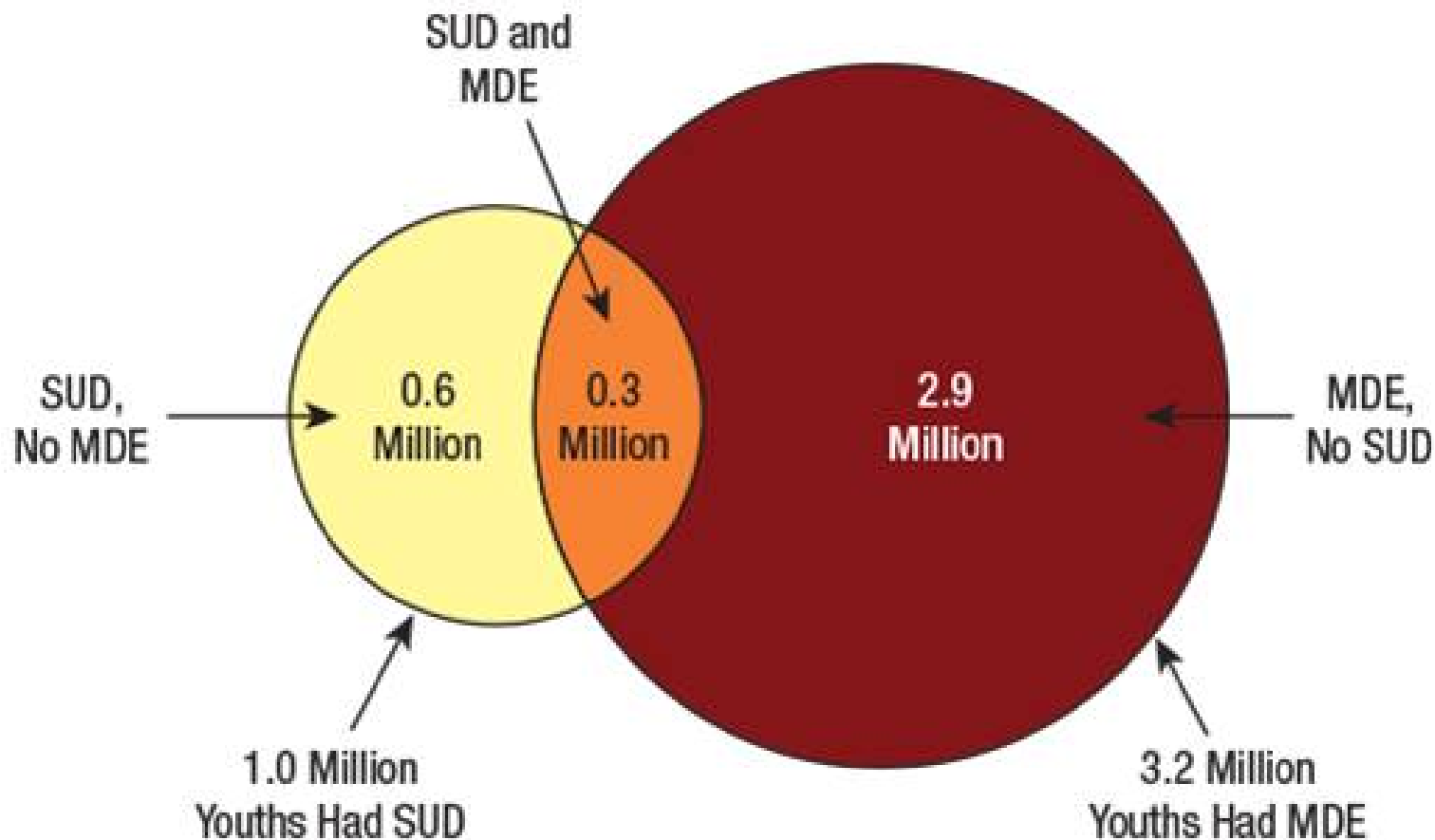


17.3 Million Adults with a Past Year MDE (7.1% of All Adults)

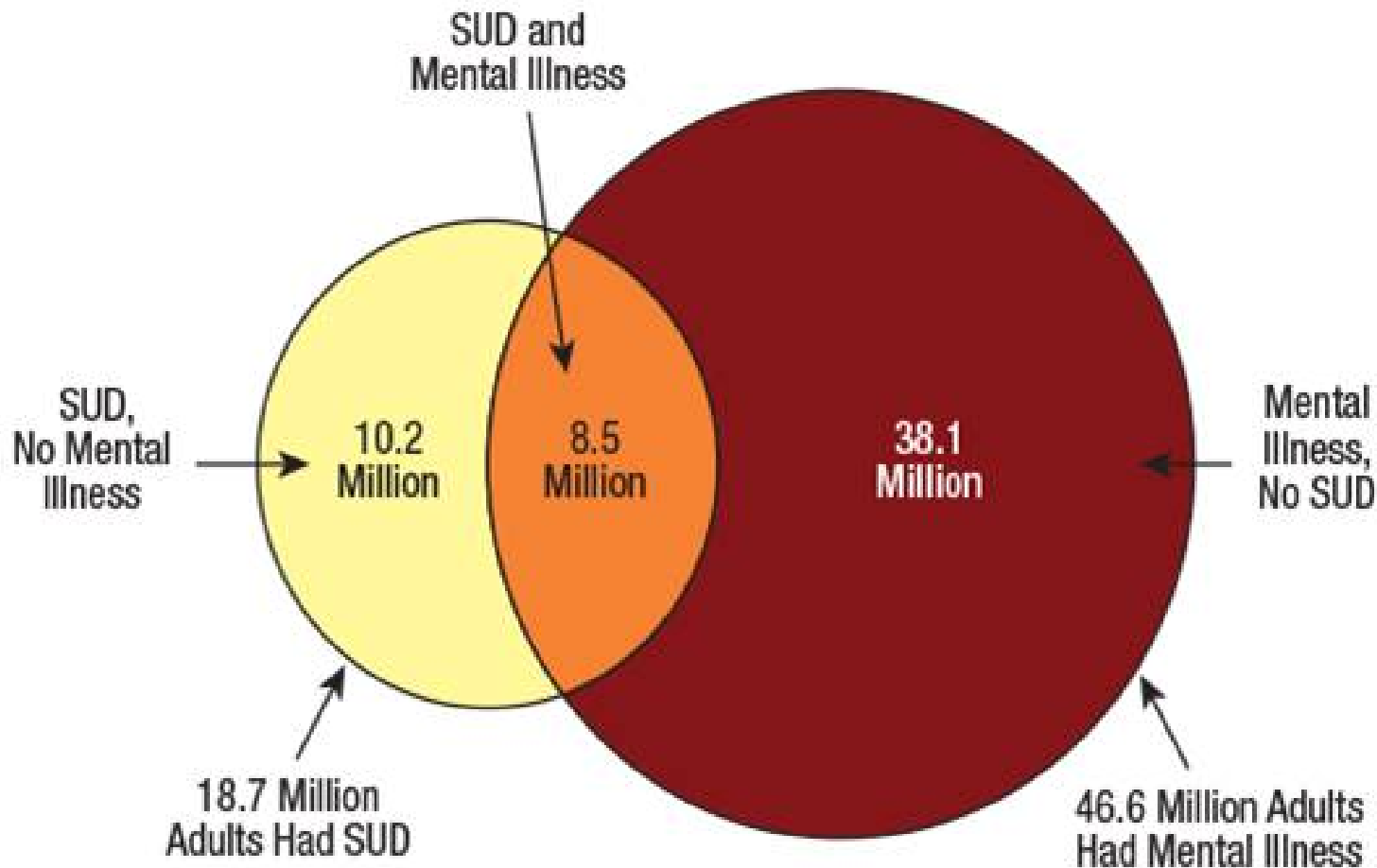
Major Depressive Episode in the Past Year among Adults Aged 18 or Older, by Age Group: %, 2005-2017



Past Year Substance Use Disorder (SUD) and Major Depressive Episode (MDE) among Youths Aged 12 to 17: in Millions, 2017

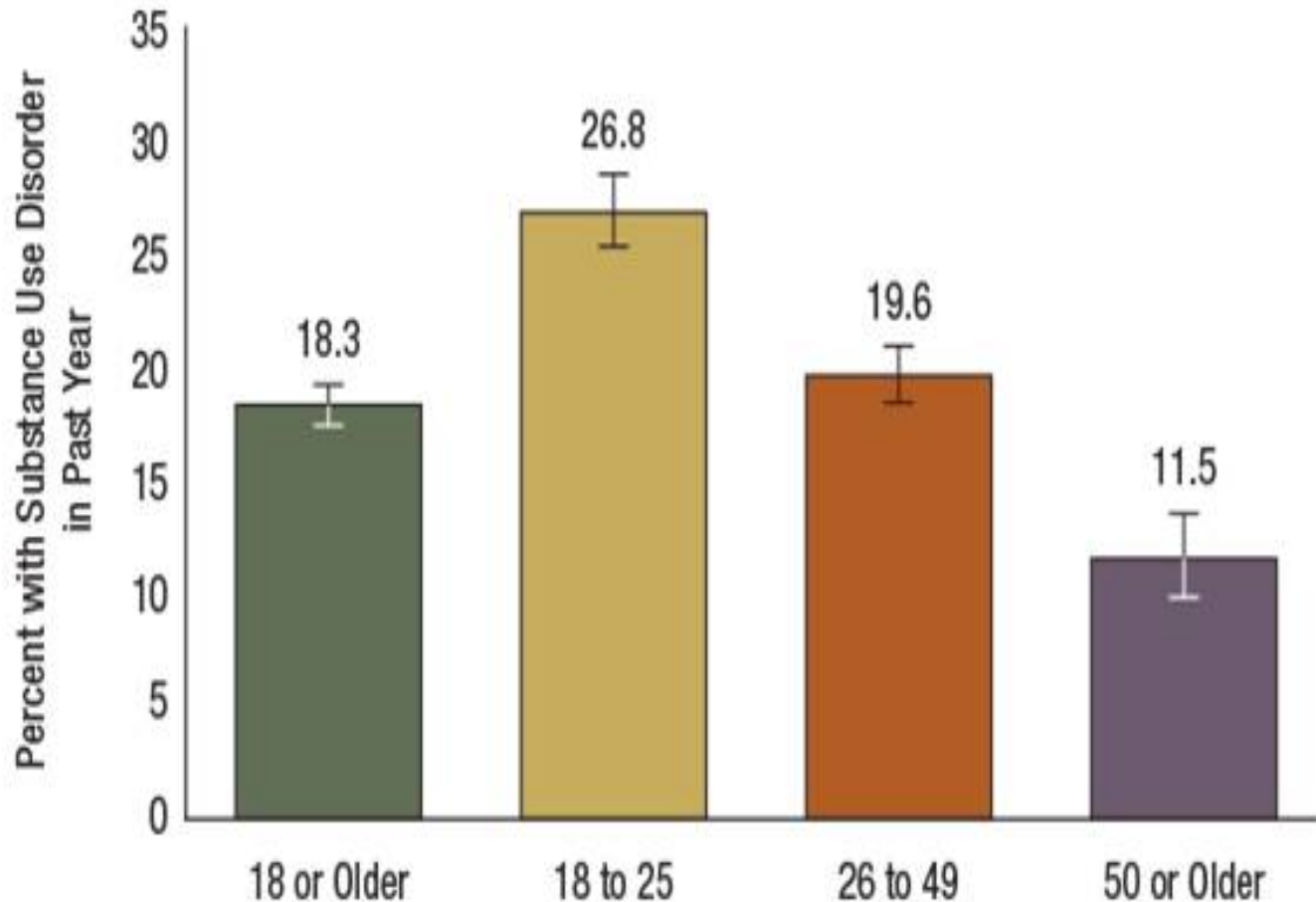


Past Year Substance Use Disorder (SUD) and Mental Illness among Adults Aged 18 or Older: in Millions, 2017

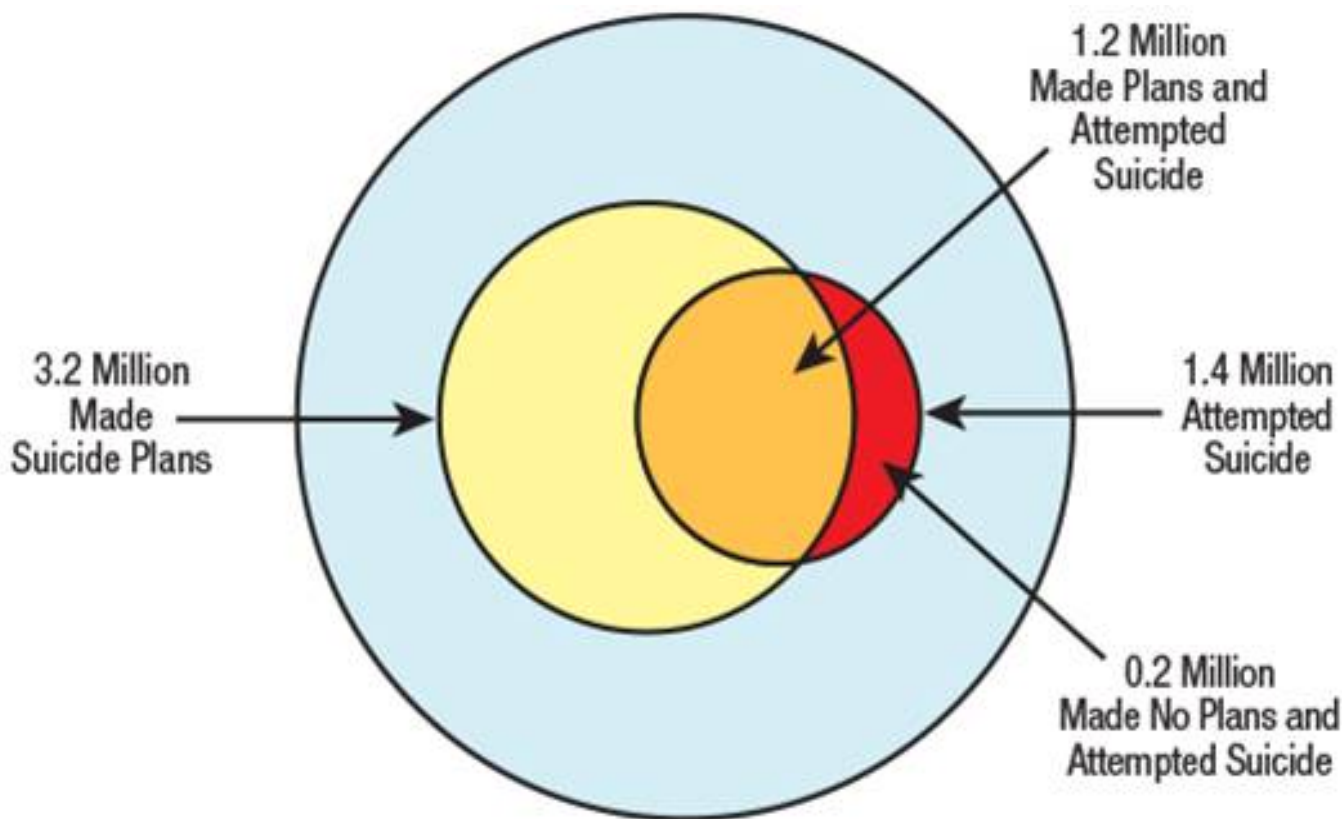




Past Year Substance Use Disorder among Adults Aged 18 or Older with Any Mental Illness in the Past Year: %; 2017

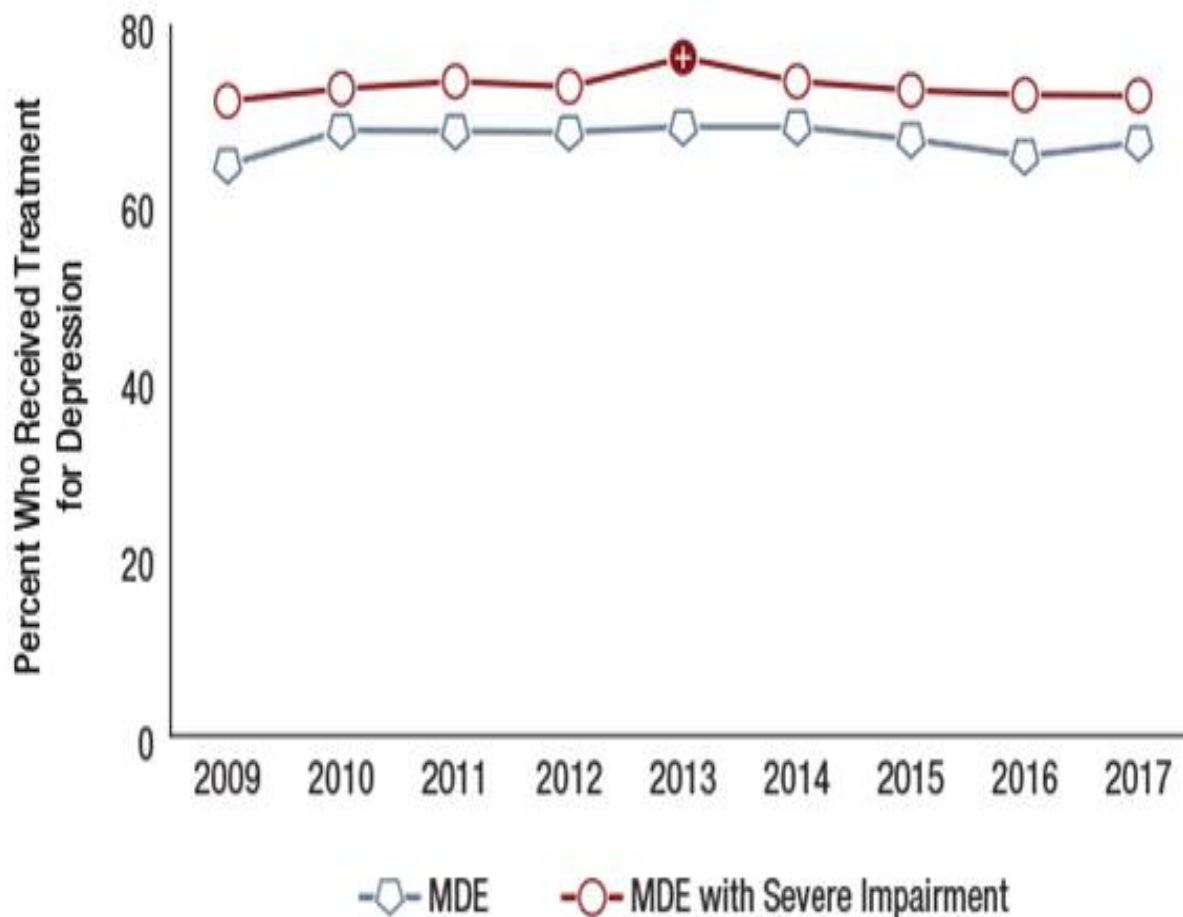


Suicidal Thoughts, Plans, and Attempts in the Past Year among Adults Aged 18 or Older: in Millions, 2017

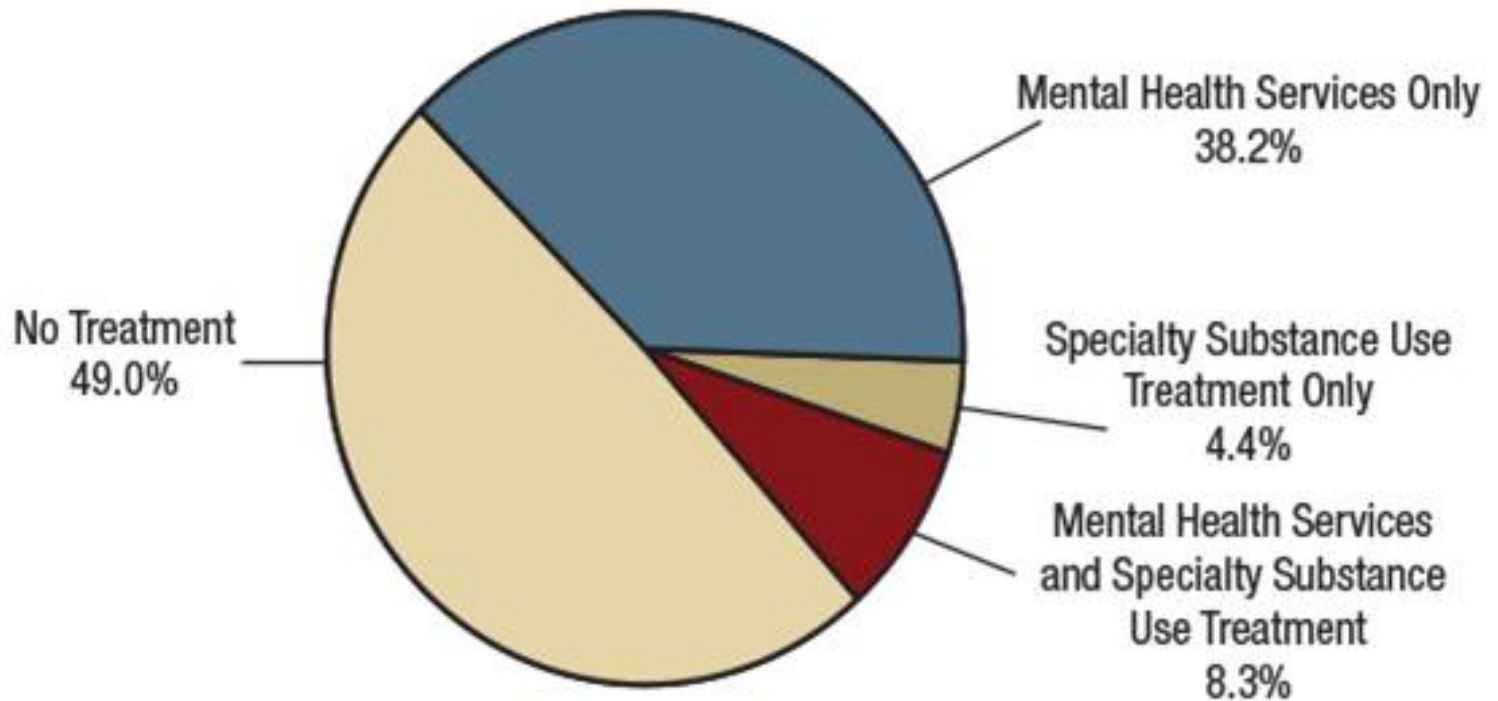


10.6 Million Adults Had Serious Thoughts of Committing Suicide

Received Treatment in the Past Year for Depression among Adults Aged 18 or Older with a Past Year (MDE): %, 2009-2017



Receipt of Mental Health Services and Specialty SUD Treatment in the Past Year among Adults Aged 18 or Older with Past Year MI and SUD: %, 2017



8.5 Million Adults with Co-Occurring Mental Illness and Substance Use Disorders

TRADITIONAL VIEW OF TREATMENT OUTCOMES



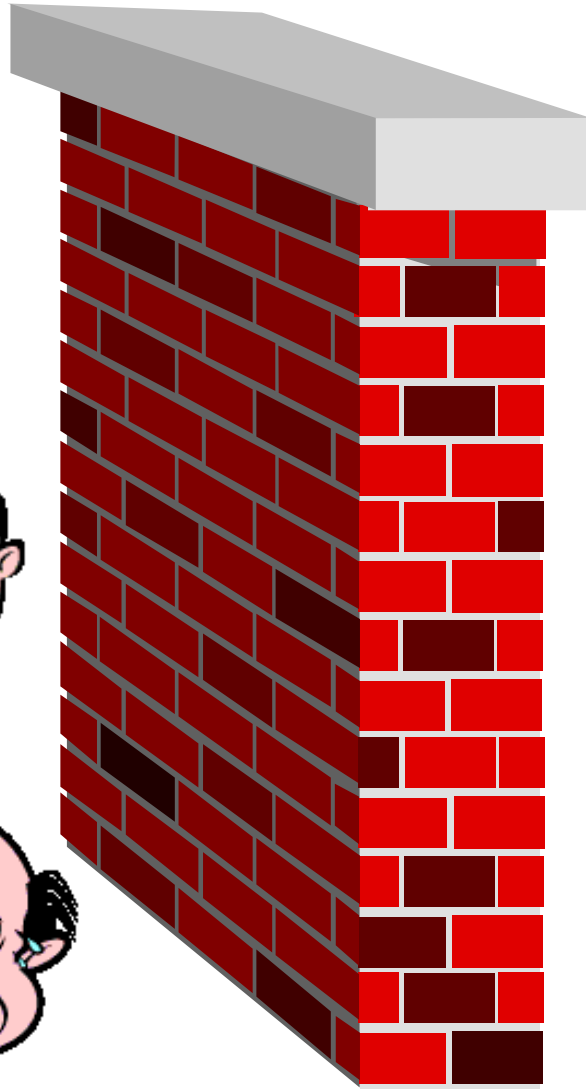
“Before”

Black

Using

Dirty

Criminal



“After”

White

Not Using

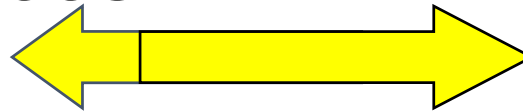
Clean

Recovered



MORE REASONABLE VIEW OF TREATMENT: CHRONIC DISEASE MODEL

**Excess Negative
Consequences
With No
Improvement In
Function**



**No Negative
Consequences
With Great
Improvement In
Function**

Absolute use may or may
not correlate with this

TREATMENT: GENERAL

- In general, treatments for addiction and psychiatric disorders have developed in parallel
- Funding for treatment is often separate
- Psychosocial treatments are extremely important in both
- Pharmacologic interventions are more limited due to safety and potential for abuse
- Limited studies comparing various modalities

TREATMENT: GENERAL

Some potential “advantages” of Comorbidity:

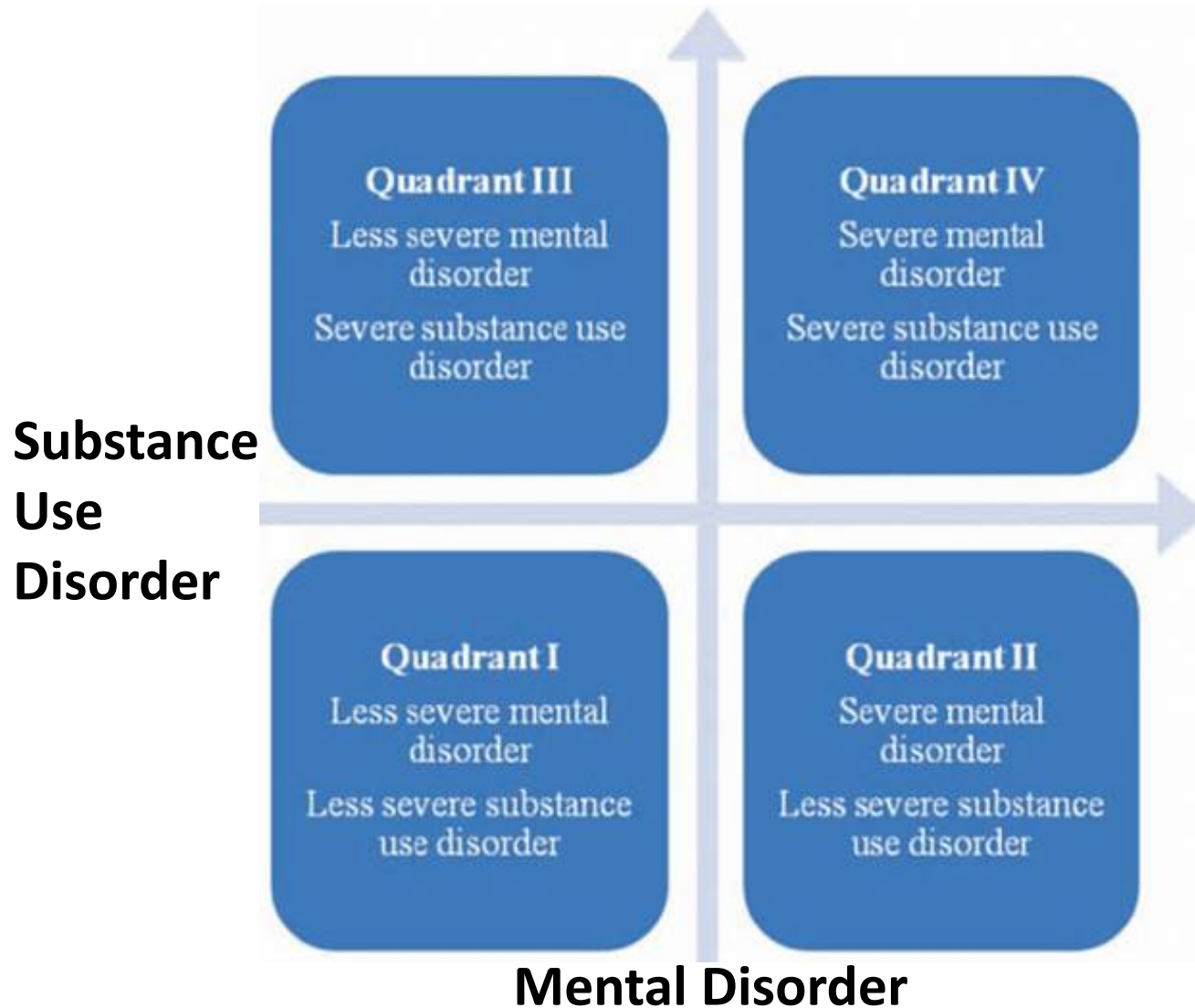
- Some evidence that patients with addiction and comorbid major depression may be more likely to seek help than those with addiction alone
- Some symptoms of a personality disorder may improve as a consequence of the addiction treatment

TREATMENT: GENERAL

Some potential disadvantages of Comorbidity:

- Severe psychotic or thought disorders may limit ability to utilize psycho-educational component
- Social anxiety, claustrophobia, panic attacks and agoraphobia may limit the utility of 12-step groups
- Depression may result in increased morbidity with relapse or failed attempts at abstinence
- Cluster B personality disorders often produce behaviors that jeopardize involvement in intensive treatment and may hamper others

COMORBIDITY SEVERITY



TREATMENT: GENERAL PRINCIPLES

- Staged treatment
 - acute stabilization vs maintenance
 - adjust based on patient's motivation to change
- Treat both disorders
- Avoid overtreatment
- Use medications that may treat sx's of both DOs
- Start with medications w the least abuse liability
- Regularly monitor for toxicity, misuse, diversion

TREATMENT: MODELS

Parallel Model- patient participates in two “systems” simultaneously

Serial (sequential) Model- patient participates in one system, then another

Integrated Model (IDDT)- patient participates in a single, unified and comprehensive treatment program that addresses both disorders

-Many studies support superior efficacy of this

-Co-occurring **capable** vs co-occurring **enhanced**



Welcome to the DRA Online Resource Center

Special announcement: The Dual Recovery Anonymous World Services Bookstore is Back Online.

Dual Recovery Anonymous World Services will be taking orders by telephone call-in during a temporary transition. Thank you for your patience, tolerance and understanding while Dual Recovery Anonymous World Services is undergoing new and exciting transformations. Click the following link to access the bookstore catalog:

Bookstore now open. Click the Bookstore link to the left to access the phone-in catalogue.

DRA Bookstore

Dual Recovery Anonymous™ is an independent, nonprofessional, twelve step, self-help fellowship organization for people with a dual diagnosis. Our goal is to help men and women who experience a dual illness. We are chemically dependent and we are also affected by an emotional or psychiatric illness in all areas of our lives; physically, psychologically, socially.

[Dual Diagnosis](#) [Chemical Dependence](#)

Dual Recovery Anonymous™ is a Fellowship of men & women who help each other in our common recovery from two No-Fault illnesses: psychiatric illness and chemical dependency.

Dual Recovery Anonymous™ is a 12 Step self-help program that



- Questions & Answers
- Meeting Format
- DRA Preamble
- Accepting Differences
- Getting Started
- 12 Steps
- 12 Traditions
- History of DRA

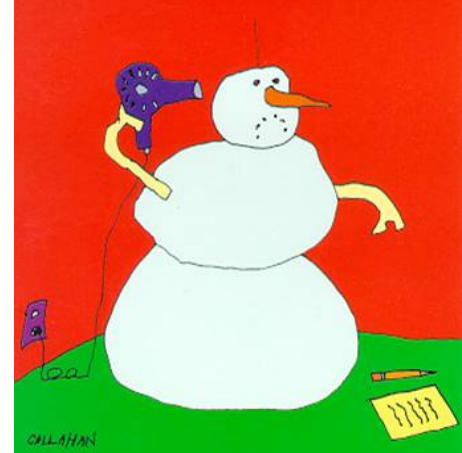
- Questions & Answers
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- Getting Started
- 12 Steps
- 12 Traditions
- History of DRA
- The DRA Crest
- Bookstore

- Find a Meeting
- Membership Services

Maryland

- BALTIMORE** - Truth United. Tuesday and Thursday 11 a.m. to noon (Open Meeting) 3300 N. Calvert St. 2nd floor. Contact: Chet K. Phone #: 410-554-6621. Alternate DRA Literature, Speakers, Discussion Meetings. Non-Smoking. (New 8/2007)
- BALTIMORE** - Help is Here. Wednesday 6:30 - 7:30 p.m. (Closed Meeting) 10 East Mount Vernon Place. Phone #: 410-547-2721 Non-Smoking. Please use the alley behind church to enter. (Updated 5/2003)
- GREENBELT** - Hope, Sunday. 12:00 noon - 1:00 p.m. (Closed meeting) Greenbelt Step Club, 155 Centerway Dr., Contact: Linda O., Phone #: 301-927-3564 Email: Lkayonell25@juno.com (Updated 11/2003) Non-Smoking
- GREENBELT** - Hope, Monday 8:00 pm - 9:00 pm (Open meeting) Greenbelt Step Club, 155 Centerway Dr., Phone #: 301-927-3564 Email: Lkayonell25@juno.com (Updated 11/2003)
- HAGERSTOWN** - Hope For Today. Thursday 7:00 - 8:00 p.m. (Closed Meeting) 913 Maryland Ave. Contact: Keith R. Phone #: 301-797-7573 Email : noopion33@aol.com Non-Smoking (New Listing 1/2004)
- SALISBURY** - Lunchtime Group of DRA. Wednesday 12:30 - 1:30 p.m. (Open Meeting) Peer Connections, 509 Calloway St. Phone #: 410-546-1822 Phone #: 410-860-5046 (New Listing 9/2003)
- UNIVERSITY PARK** - Riverdale Hope, Saturday 2:00 - 3:00 p.m. (Closed meeting) Riverdale Presbyterian Church, 6513 Queens Chapel Rd, first floor. Contact: Toni H., Phone: 301-699-8939 Email: oopgpcinc@verizon.net (Started 11/2007, Updated 7/2008)

SUICIDE & SUDS



- Studies show substance use as a contributing factor in 50-70% of completed suicides
- 20-30% of patients with SUD entering treatment have made a suicide attempt
- The incidence of completed suicides in those with SUD is 3-4 times that in those without SUD
- Suicide in those with alcohol use disorder may be 30 times that in the general population
- Lifetime mortality from suicide among individuals with SUD may be >15%

PSYCHOTIC SXS & SUDS

- Seen commonly with intoxication from PCP, hallucinogens, stimulants, anticholinergics
- Seen less commonly with intoxication from marijuana and steroids
- Seen in withdrawal from alcohol and other sedative hypnotics
- Limited data on substance use causing long-term psychosis



SCHIZOPHRENIA

Reasons for substance use in schizophrenia:

- to decrease negative symptoms of schizophrenia
- to combat positive symptoms of schizophrenia
- to improve thought process
- to ameliorate side effects of antipsychotic medications
- addiction**

SCHIZOPHRENIA TREATMENT

Atypical antipsychotics

- may target negative symptoms better
- tend to have less side effects

Antidepressants

- may help some negative symptoms

Disulfiram

- use with caution due to effects on dopamine beta-hydroxylase

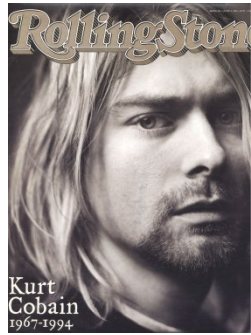
Naltrexone

- not specifically studied

Smoking cessation aids

- few data but likely effective

Be wary with methadone- most antipsychotics can prolong QTc



DEPRESSIVE SYMPTOMS & SUDS

- Mood instability and depression are extremely common in people with SUDS
- Up to 98% of people presenting for substance abuse treatment have some symptoms of depression
- Many symptoms resolve very quickly with abstinence alone

MAJOR DEPRESSION TREATMENT

SSRIs

-fluoxetine has been shown to decrease alcohol use and depressive sx's in patients with alcohol use DO & major depression

TCA's

-moderate decreases in alcohol consumption and depression in depressed pts with alcohol use disorder

-limited effect on depressive symptoms or cocaine use in depressed, cocaine dependent patients

-be wary of additive cardiotoxicity

MAOIs

-less recommended because of:

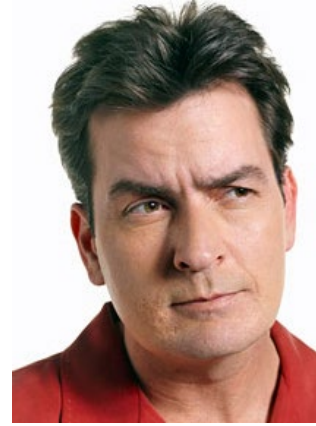
-dietary constraints (which are less likely to be adhered to with substance abuse)

-potential for hypertensive crisis w stimulants

Selective transdermal MAOI???

Buprenorphine????

MANIC SXS & SUDS



- Most often seen with cocaine and other stimulants (caffeine?)
- Can be seen with PCP & steroids
- Tend to see more mixed episodes and rapid cycling with dually diagnosed patients

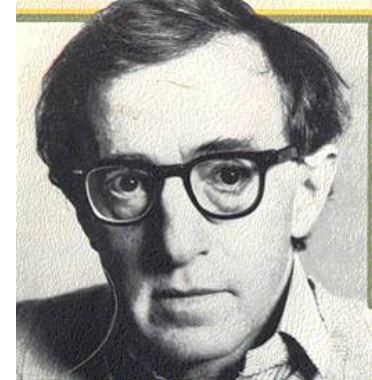
BIPOLAR DISORDER TREATMENT: LITHIUM

- Few controlled studies on the treatment of comorbid bipolar disorder and substance use disorders
- Substance use disorder may be a predictor of poor response to lithium in some
- More likelihood of fluid and electrolyte imbalance in patients with comorbid substance use disorders
- Anti-suicide effects vs increased toxicity

BIPOLAR DISORDER TREATMENT: OTHER MEDS

- Patients w comorbidity may respond better to anticonvulsants because of higher incidence of mixed episodes and rapid cycling
- Small studies show efficacy of valproate in decreasing manic sx's & decreasing substance use
- Better compliance with valproate than with lithium
- Few data on newer anticonvulsants
 - some promising results with lamotrigine
- Few data on newer antipsychotics
 - some promising results w quetiapine, aripiprazole

ANXIETY SXS & SUDS



- Very common part of alcohol, sedative-hypnotic and opioid withdrawal
- Very common symptom of cocaine, amphetamine, inhalant, steroid, PCP, hallucinogen intoxication
- Increase prevalence of SUDS for all Anxiety Disorders except OCD (no longer in w others)
- Higher co-occurrence with alcohol, opioids, sedatives use disorders

ANXIETY DISORDERS TREATMENT

TO BE_{nzo}

or

NOT TO BE_{nzo}?

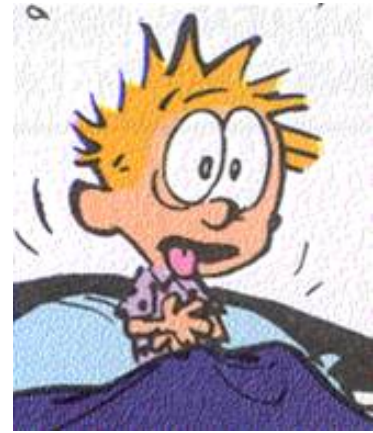


ANXIETY DISORDERS TREATMENT

- Buspirone
- SSRIs
- Hydroxyzine (Vistaril, Atarax)
- Propranolol
- Atypical antipsychotics
- Gabapentin
- Benzodiazepines

- PSYCHOTHERAPY

PANIC DISORDER



- In the ECA study, 36% of people with Panic Disorder had a concomitant substance use disorder
- Estimates in treatment-seeking alcohol use disorder range from 5-42%
- One literature review did not find an elevated rate of alcohol use disorder in patients with Panic Disorder
- Higher in patients with agoraphobia

PANIC DISORDER TREATMENT

- Few data on treatment of dually diagnosed patients
- Benzodiazepines use controversial
 - reports of successful use with no apparent abuse of the benzodiazepine
 - may be used very cautiously early in treatment
- SSRIs are logical first line treatment given efficacy in treating Panic Disorder and low abuse potential
- Non pharmacological treatments very important

GENERALIZED ANXIETY DISORDER

- Very difficult to diagnose if there is concurrent substance use
- DSM-5 requires a 6 month period of anxiety not directly related to the effects of a substance
- Some reports that there is no increase in comorbidity

GENERALIZED ANXIETY DISORDER TREATMENT

- Few data on treatment of dually diagnosed patients
- Benzodiazepine use controversial
- Buspirone has been shown to decrease alcohol consumption and anxiety in alcohol dependent patients with anxiety disorder
- SSRIs have been shown to be useful in treating GAD in non-substance abusing populations
- Gabapentin ???
- Nonpharmacological treatments very important

SOCIAL ANXIETY DO



Booze made me feel normal and uninhibited. It gave me courage to do things I could never do sober.

- Rates of comorbidity w alcohol use disorder range from 8-55%
- One review of the literature reported prevalence of alcohol use disorder 9Xs that of general population
- Little info on comorbidity of social anxiety and drug use disorders

SOCIAL ANXIETY TREATMENT

- Social phobia may significantly affect patient's ability to engage in traditional psychosocial treatments (groups)
 - Individual therapy may be more appropriate & successful
- Very few data on treatment of pts with both disorders
- SSRIs probably should be tried first given proven efficacy and low abuse potential
- Benzodiazepines generally last resort
- Propranolol may be used to aid in public speaking
- Cognitive-behavioral therapies may be effective

OBSESSIVE-COMPULSIVE DISORDER

- One review of the literature reported prevalence of alcohol use disorder twice that of general population
- Some studies show no higher prevalence of comorbidity

PTSD



- NCS study showed 30-50% of men and 25-30% of women with lifetime PTSD had a co-occurring substance use disorder
- In treatment-seeking individuals, 36-70% have a lifetime dx PTSD; 25-45% have current dx
- SSRIs
 - one report of sertraline decreasing alcohol consumption
- Nefazadone ???
- Atypical Antipsychotics
- Mood Stabilizers

EATING DISORDERS



- Variability in rates of comorbidity across studies:
 - SUDs in pts w/ bulimia: 10-88%
- Pts w/ bulimia more likely to use alcohol, benzos
- Pts w/ anorexia more likely to abuse stimulants
- Both groups abuse laxatives and diuretics
- Binge-type anorexics and purge-type bulimics are more likely to abuse substances
- SUD does not necessarily worsen prognosis
- Fluoxetine

ADHD



- Meta-analyses reports co-occurrence of @ 25%
- In studies of adults with ADHD, rates of AUDs range from 17-45% and DUDs range from 9-50%
- Several studies support those treated with stimulants as children not more likely to develop use disorder

Stimulants

- use slow/extended/delayed-release formulations

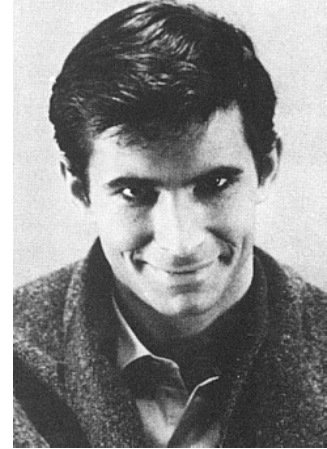
Bupropion

- good results reported in patients w ADHD & SUDS
- beware its abuse potential

Atomoxetine

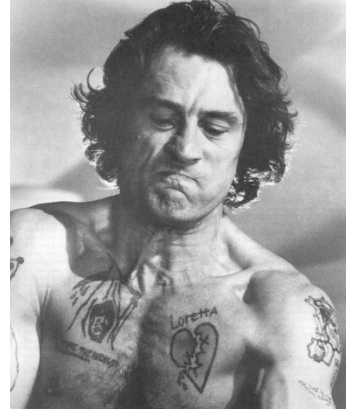
SSRIs?

DISSOCIATIVE DISORDERS



- In studies of adults with DID, rates of alcohol use disorders range from 10-55% and drug use disorders range from 28-57%
- Benzodiazepines and alcohol most commonly abused substances
- Opioid abuse may result from treatment of headaches often seen in DID
- Substance abusing “alter” may express other wise unacceptable impulses

PERSONALITY DISORDERS



- Antisocial Personality Disorder has high comorbidity with substance use disorders
 - some studies report up to 80%
 - more in males
- Comorbidity with Borderline Personality Disorder also very common
- Neither of these is primarily due to the overlap in diagnostic criterion
- Important to distinguish “**acts**” from “**disorder**”!!!!
- Mood stabilizers may help some of impulsivity, including substance use

QUESTIONS?



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