



Co-Occurring Psychiatric and Substance Use Disorder in OUD

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NSDUH 2016 Highlights

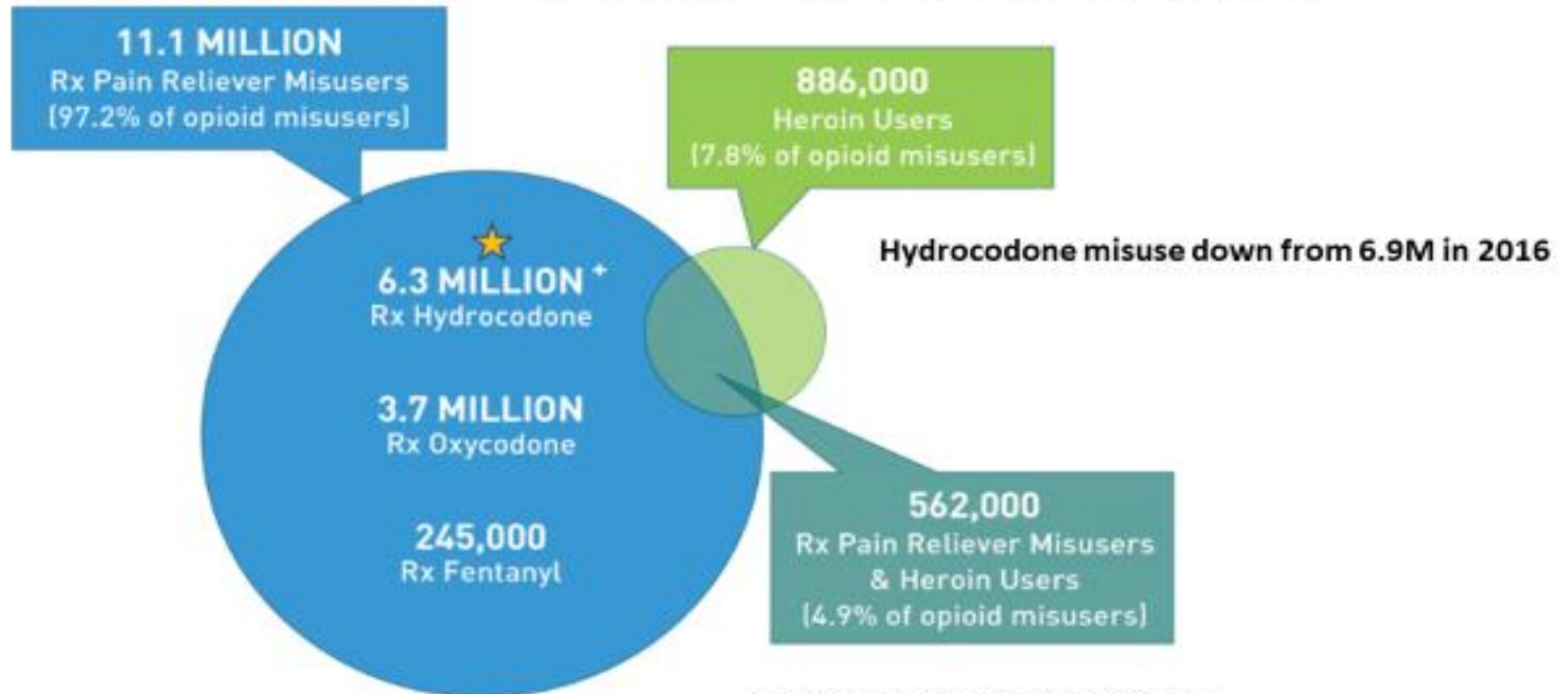
- Opioids epidemic:
 - Increasing heroin use in context of continuing prescription opioid misuse (4.4% of Americans over age 12)
 - Disproportionate increase in drug overdose deaths associated with opioids and with heroin use (CDC data) related to synthetic opioids mixed into heroin (e.g.: fentanyl)
- Increases in serious mental illness, suicidality in transitional age youth
- Major gaps in treatment received by affected individuals

Opioid's Grip: Millions Continue to Misuse Prescription Pain Relievers

PAST YEAR, 2017, 12+

★
Significant decrease
from 12.7 M misusers
in 2015

11.4 MILLION PEOPLE WITH OPIOID MISUSE (4.2% OF TOTAL POPULATION)



See figures 20 and 24 in the 2017 NSDUH Report for additional information.

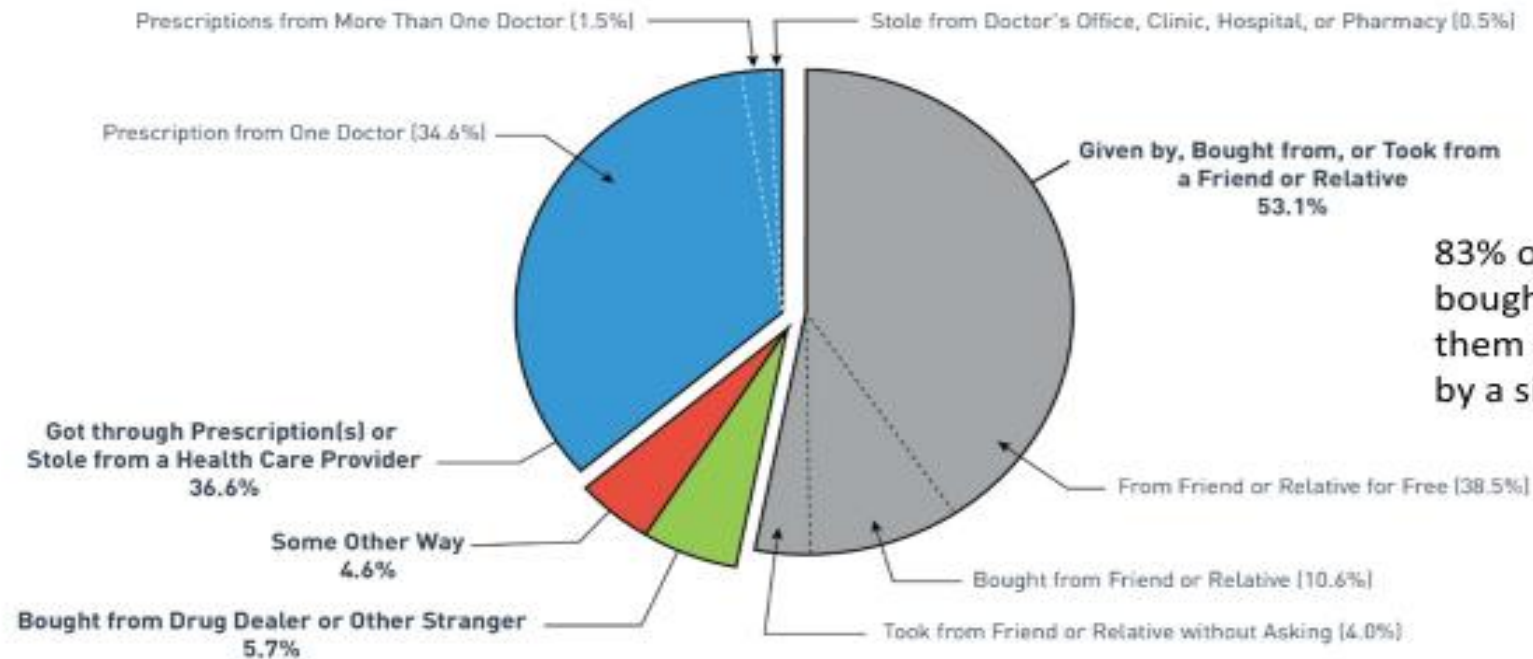
+ Difference between this estimate and the 2016 estimate is statistically significant at the .05 level.

Note: Opioid misuse is defined as heroin use or prescription pain reliever misuse.

Note: The percentages do not add to 100 percent due to rounding.

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

PAST YEAR, 2017, 12+



83% of these individuals bought/got for free, stole them from people prescribed by a single prescriber

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

See figure 26 in the 2017 NSDUH Report for additional information.

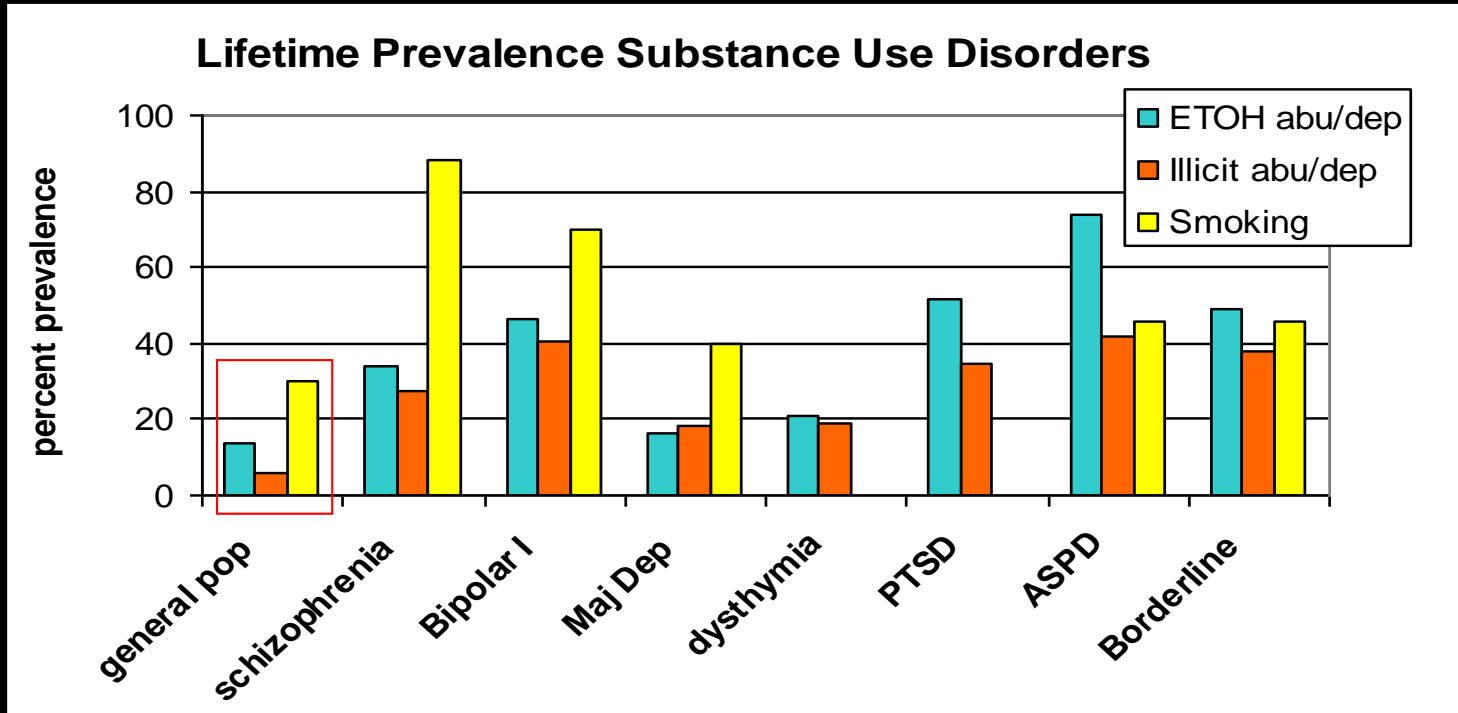


Co-Occurring Addictions and Mental Illness: “Dual Diagnosis Disorders”

Key Pearls:

1. With Opioid Addiction, having Complex Co-morbidities of Mental illness and Addiction is the Rule and not the exception
2. Causality between the Addiction and Mental illness is bidirectional.
Opioid Use Disorders Biologically pre-dispose to Mental Illness
Mental Illness Biologically pre-disposes to Acquiring addiction

Dual Diagnosis: Scope of the Problem

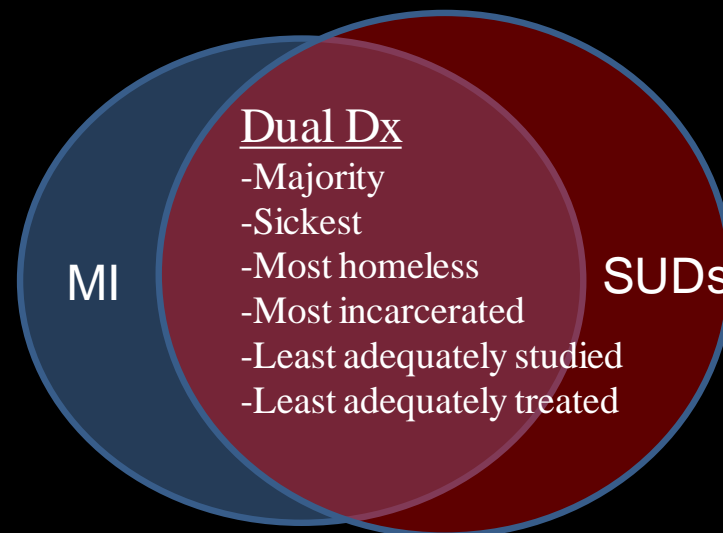


- General pop, schizophrenia, bipolar, unipolar, dysthymia (ECA data early 1980's) Regier et al. (JAMA, 1990)

- PTSD (NCS data early 1990's) Kessler et al. (Arch. Gen Psy, 1995)

- Borderline (1980's – 1990s), Trull et al. (Clin Psy Rev, 2000)

- All smoking data (1980 local outpt study), Hughes et al. (Am J Psy, 1986)



Mental and Substance Use Disorders in America

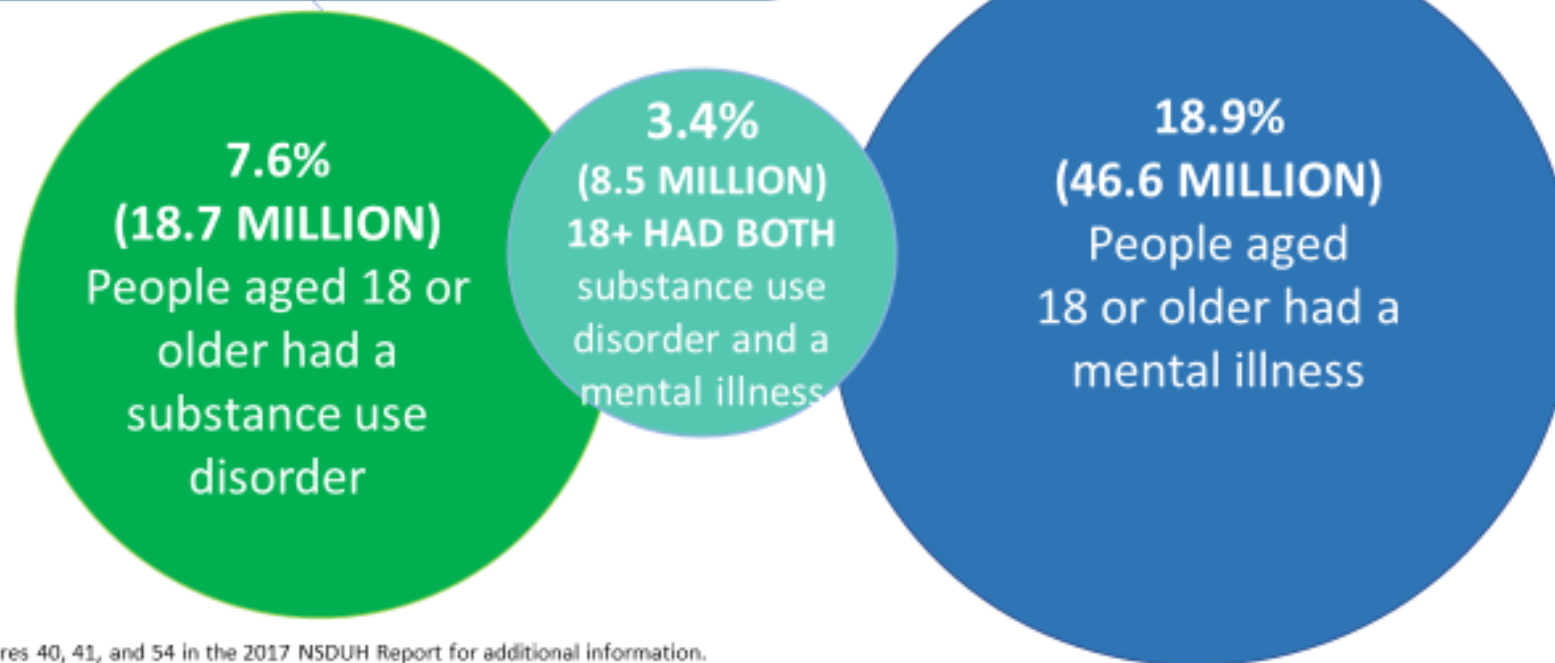
PAST YEAR, 2017, 18+

Among those with a substance use disorder:

- **3 IN 8 (36.4%)** struggled with illicit drugs
- **3 IN 4 (75.2%)** struggled with alcohol use
- **1 IN 9 (11.5%)** struggled with illicit drugs and alcohol

Among those with a mental illness:

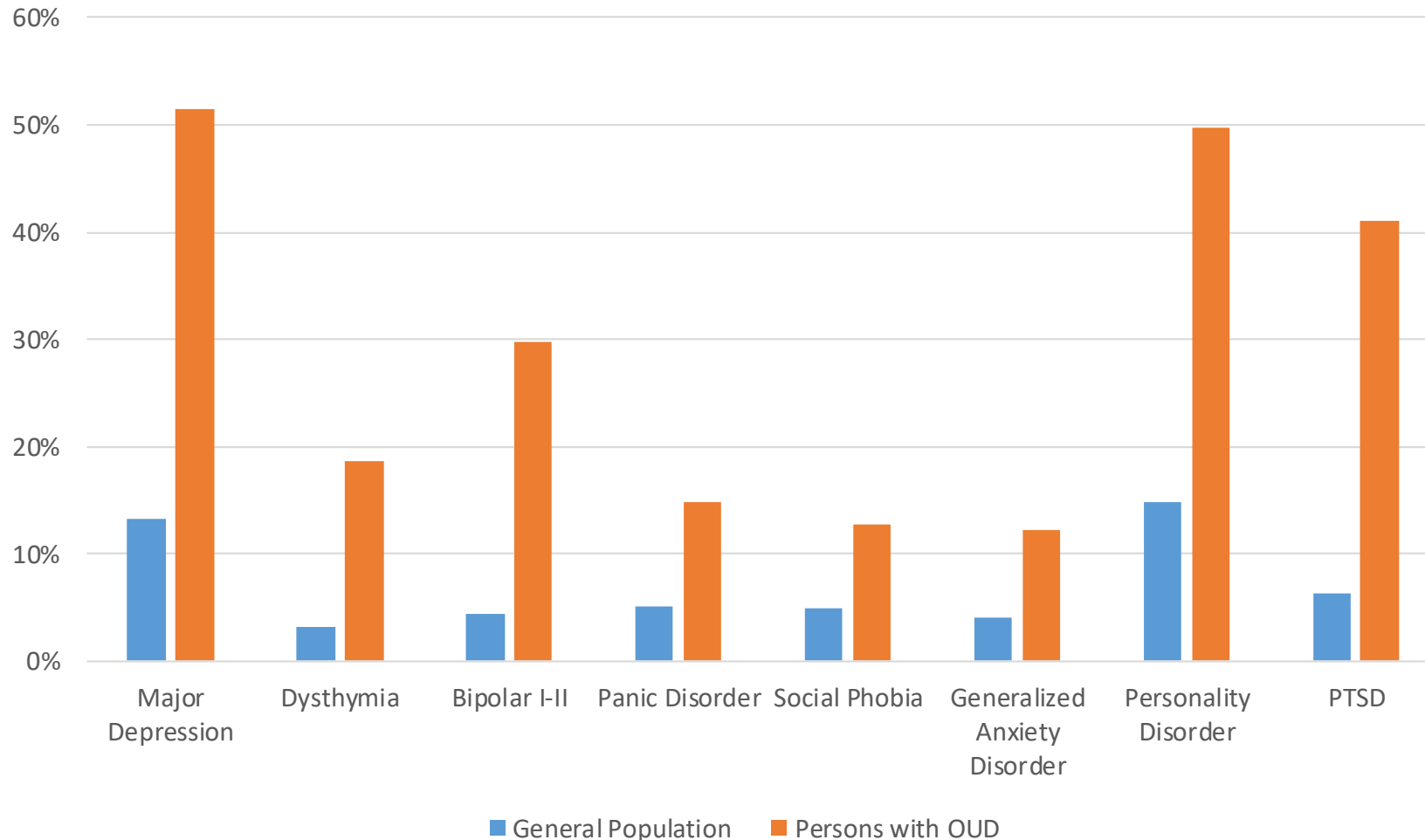
- **1 IN 4 (24.0%)** had a serious mental illness



See figures 40, 41, and 54 in the 2017 NSDUH Report for additional information.



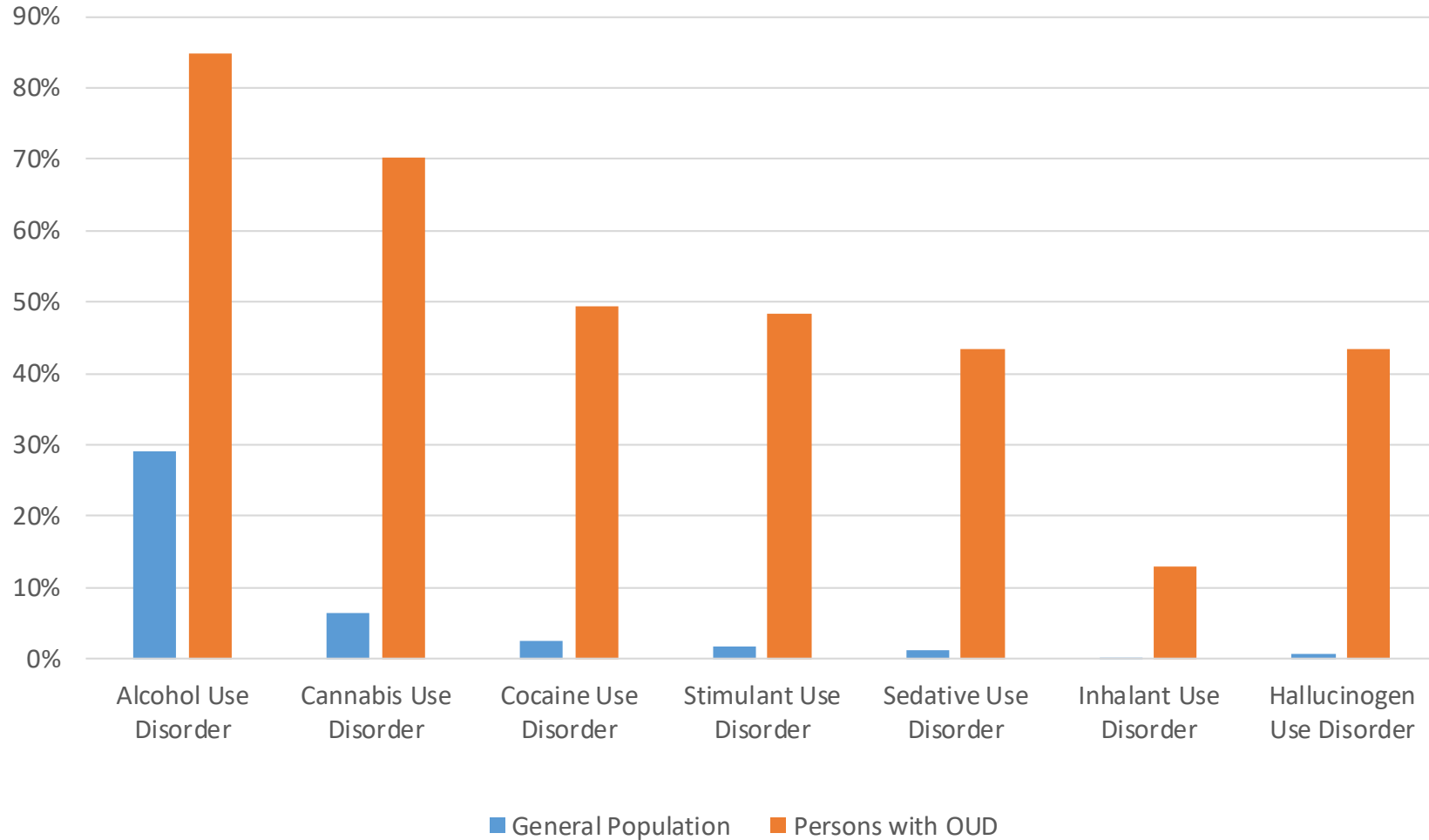
Lifetime Prevalence of Psychiatric Disorders: General Population vs OUD



Grant et al 2004, Grella et al 2009, Hasin et al 2015, Mills et al 2004



Lifetime Prevalence of Substance Use Disorders: General Population vs OUD



Grant et al 2004, Grant et al 2016, Grella et al 2009, Hasin et al 2015



Psychiatric Disorders and Opioid Dependence Reciprocally Increase Risk

- Pre-existing psychiatric disorders:
 - Generalized anxiety disorder: 11x risk of developing opioid dependence
 - Bipolar I disorder: 10x risk of developing opioid dependence
 - Panic disorder: 7x risk of developing opioid dependence
 - Major depression: 5x risk of developing opioid dependence
- Pre-existing opioid dependence:
 - 9x risk of developing panic disorder
 - 5x risk of developing major depression
 - 5x risk of developing bipolar I disorder
 - 4x risk of developing generalized anxiety disorder



Medical co-occurring disorders:

Opioid Addiction is a potentially lethal disease that causes many forms of secondary organ disease, injury and death



Medical co-occurring disorders (caused by opioid Addiction):

PAIN:

Pharmacologic

Accidental

Infectious

Neuropsychiatric



Medical co-occurring disorders (caused by opioid Addiction):

Pharmacologic:

Gastrointestinal Motility decrease/irregularity

Respiratory Depression (lethal overdose)

near lethal overdose



Medical co-occurring disorders (caused by opioid Addiction):

Accidental:

Motor Vehicle Accidents

Physical/Sexual Assault Victimization

Falls

Medical co-occurring disorders:

Infections:

Hepatitis C

Hep B

HIV

Endocarditis

Pneumonia



Organ Damage:

Liver (Cirrosis, Cancer)

HIV (Immune, Brain, multi-organ)

Endocarditis (Heart, Brain)

Lungs



Hepatitis C Prevalence in the United States

- NHANES (2003-2010)
 - 3.6 million chronically infected (anti-HCV)
 - 2.7 million currently infected (82% of anti-HCV positive)
- Populations not included in NHANES:

Population	Estimated Size	Prevalence (anti-HCV, %)	Number Chronically Infected
Incarcerated	2,186,230	23.1	505,350
Homeless	691,899	32.1	222,100
Hospitalized	478,054	15.6	74,576
Nursing homes	1,446,959	4.5	65,113
Active-duty military	1,404,060	0.5	7,020
Indian reservations	1,069,411	11.5	123,224
Total			997,384



Medical co-occurring disorders:

Neuropsychiatric:

Chronic Pain Syndrome

Traumatic/Hypoxic Brain Injury

Depression

Anxiety

PTSD (e.g. if assaulted)

Insomnia

Obesity

Suicide

Chronic Pain Syndrome

Iatrogenic (Over-interventionalism/ Injury)

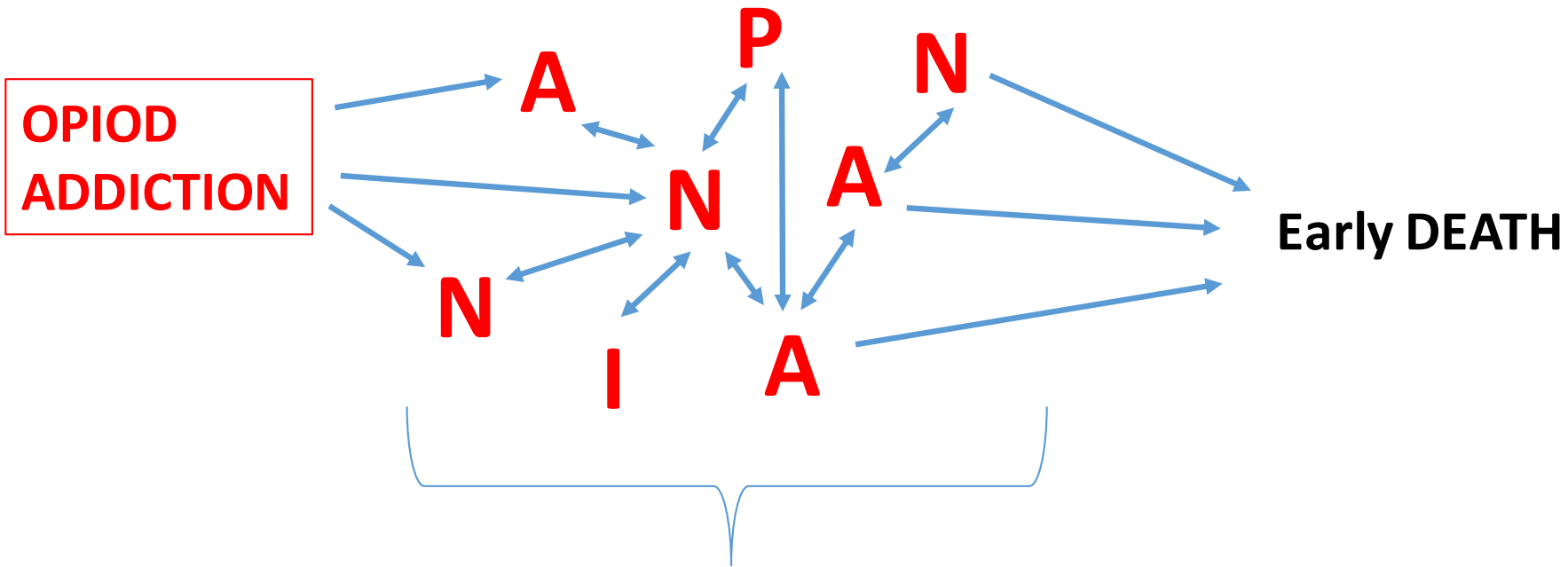
Secondary Addictions



Medical co-occurring disorders:

Opioid addiction generates a web of comorbidities

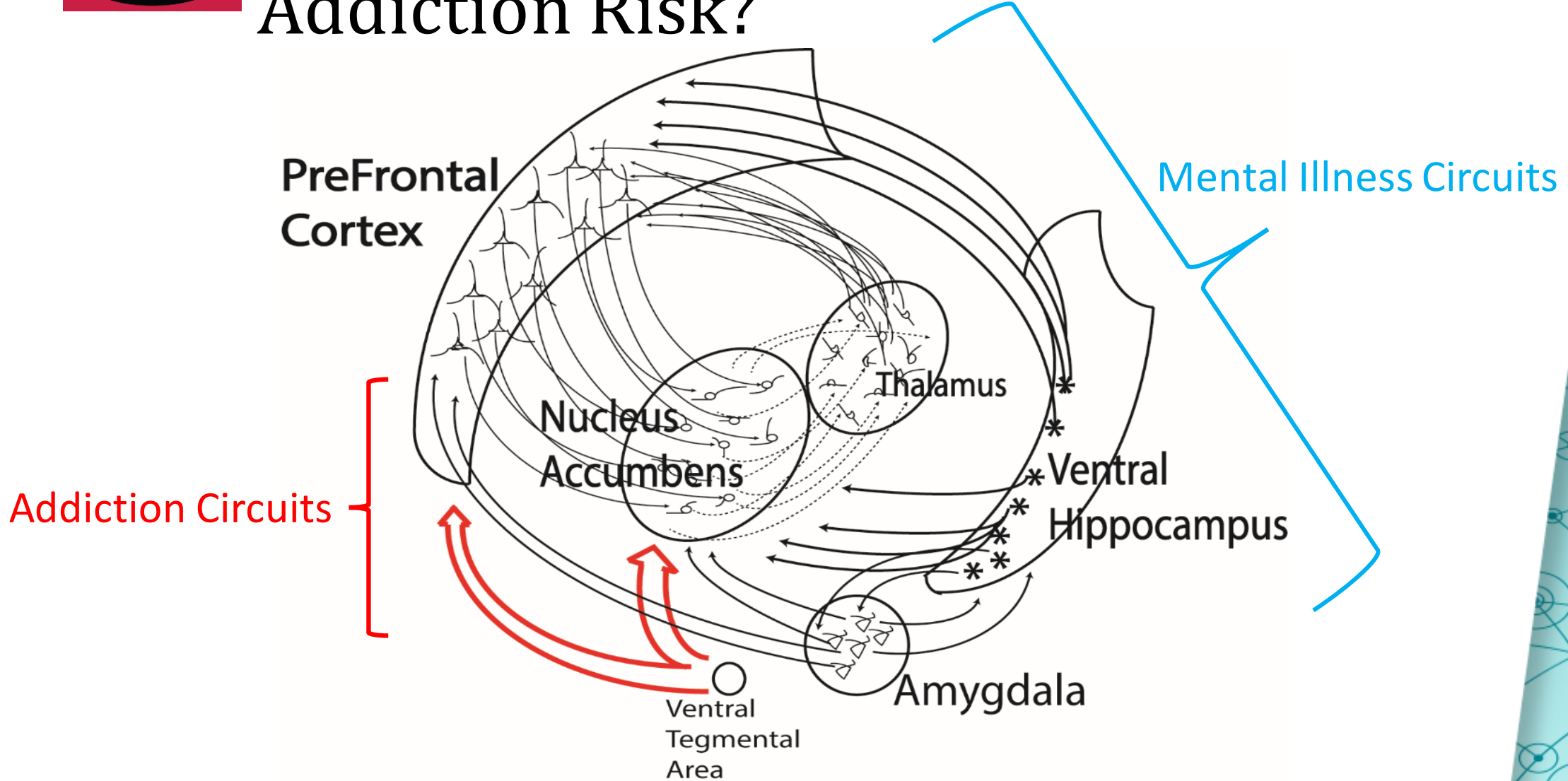
in which there are many ways to die.



Very EXPENSIVE ILLNESSES TO TREAT MEDICALLY!!



How does Mental illness generate Addiction Risk?



Adapted From: Chambers "The 2 x 4 Model", Routledge/CRC press, New York, 2018



Complex Comorbidities:

A Clinical DATA EXAMPLE From Midtown in Indianapolis

A clinical Sample of N=69 patients: all receiving Injectable NTX of OP and/or ETOH Addiction

OP only: n=19

ETOH only: n=36

OP and ETOH: 13

Benzodiazepine abuse/dependence	14 (21)
Cannabis abuse/dependence	24 (35)
Nicotine dependence	40 (59)
Stimulant (cocaine/amph) dependence	20 (29)

Any Axis 1 (non-substance use disorder)	62 (91)
Psychotic spectrum	4 (6)
Bipolar spectrum	11 (16)
Unipolar depression spectrum	45 (66)
Anxiety spectrum	22 (32)
PTSD	9 (13)
Axis 2 mental illness	
Any personality disorder	25 (37)

Mental illness + substance use D/O ^b	0	0 (0)
	1	1 (2)
	2	6 (9)
	3	17 (25)
	4	17 (25)
	5	10 (15)
	6	6 (9)
	7	9 (13)
	8	2 (3)

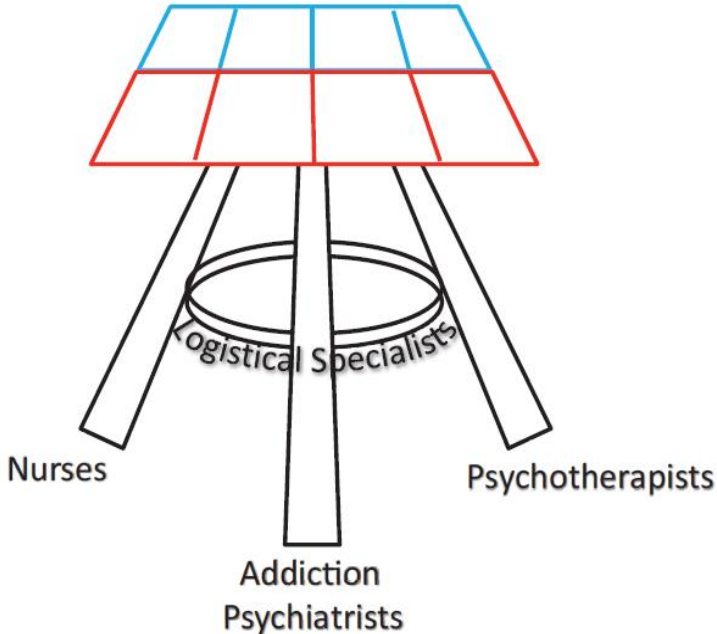
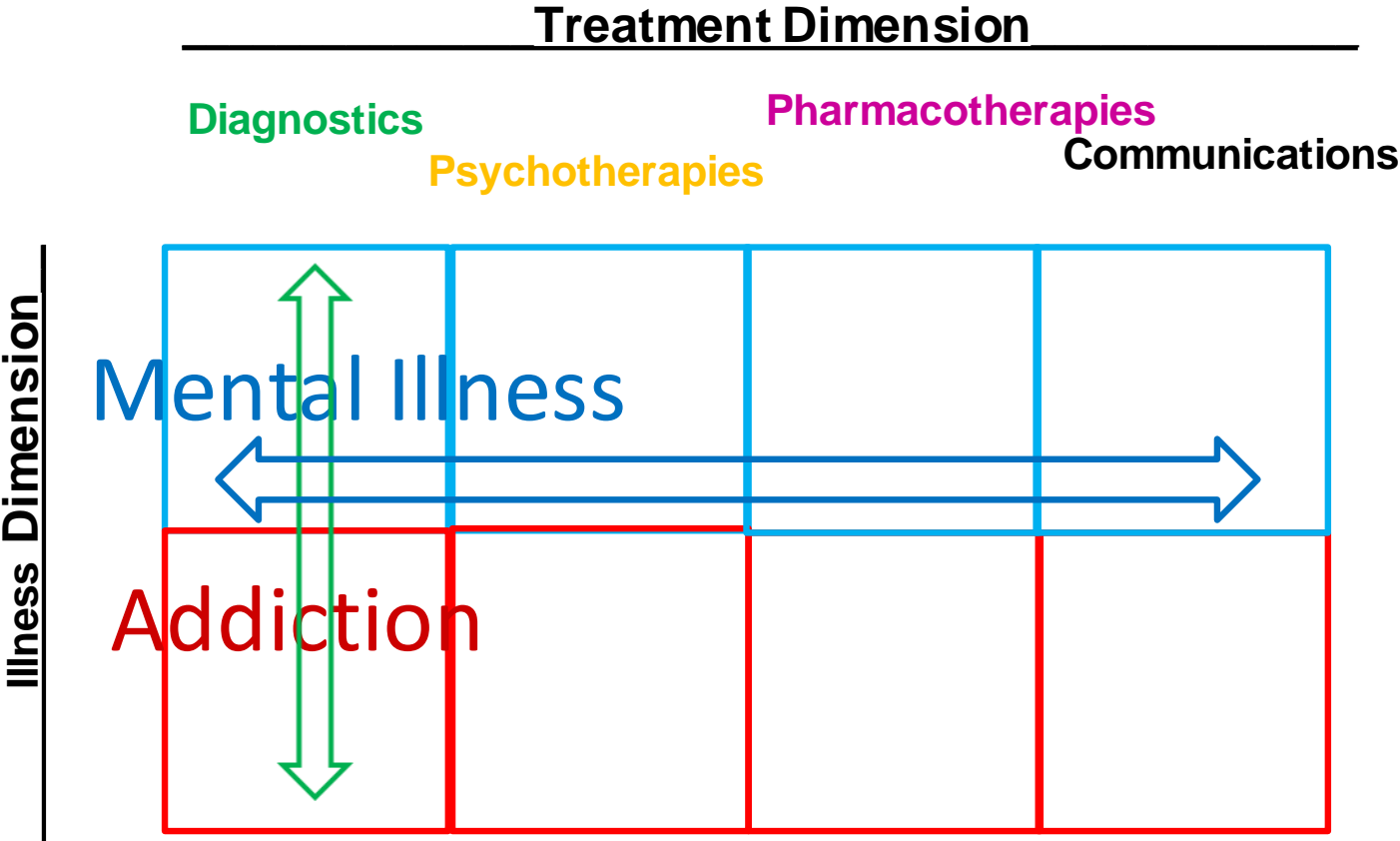
Sajid et al. (2016) "Prescription Drug Monitoring Program Data Tracking of Opioid Addiction Treatment Outcomes in Integrated Dual Diagnosis Care Involving Injectable Naltrexone", AM J Addictions, 25: 557-564



Treating Co-occurring Disorders Requires Integrated Addiction and Mental Health Treatment:

The 2 x 4 Model: An integrated clinical design where Mental Illness and Addiction Diagnosis and Treatment occur in an integrated way (using meds and psychotherapies) by one team under one roof

The 2 x 4 Model: A Neuroscience-based Blueprint for the Modern Integrated Addiction and Mental Health Treatment System

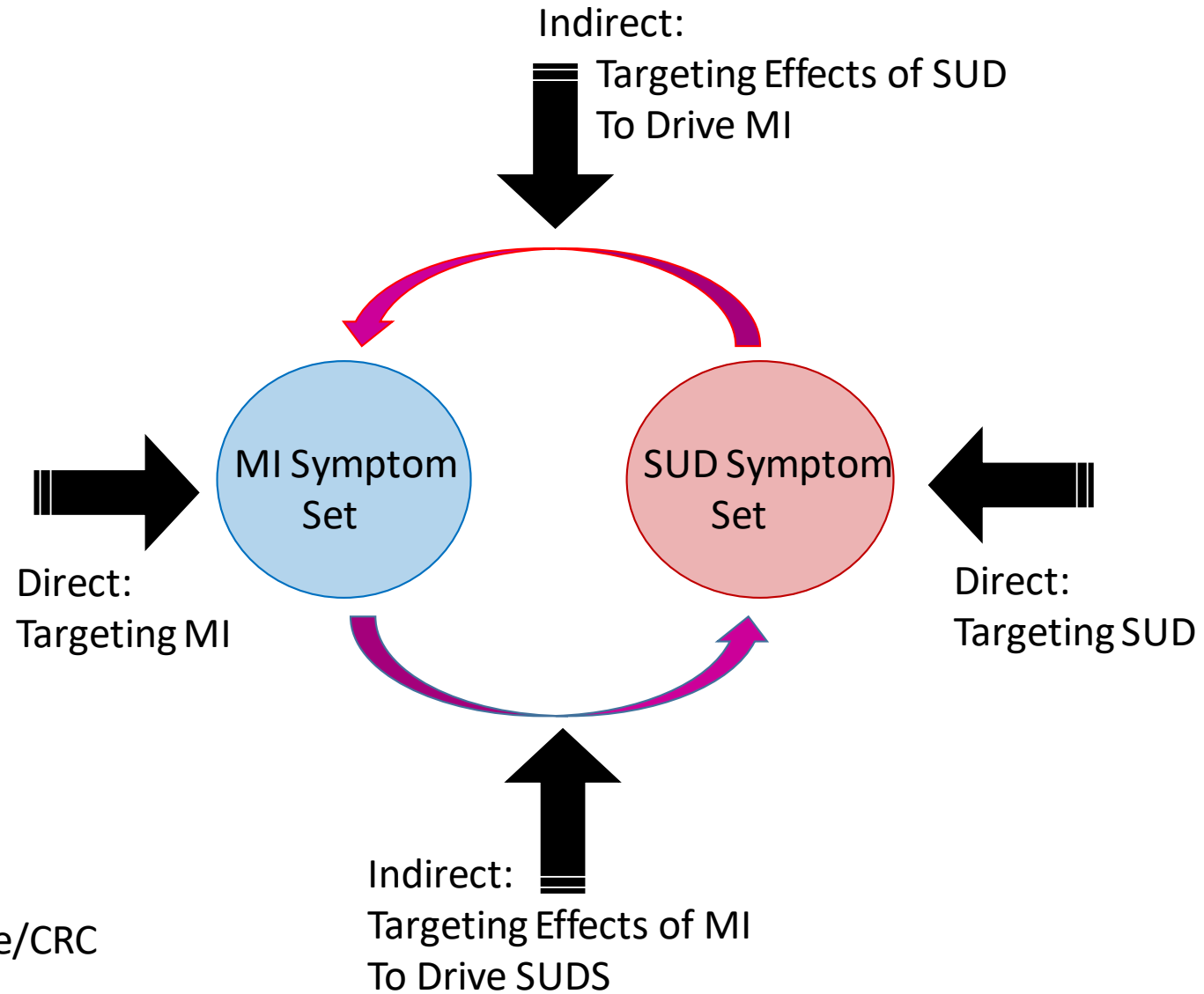


Adapted From: Chambers "The 2 x 4 Model", Routledge/CRC press, New York, 2018



Figure 15

Points of Attack in 2 x 4 Model Treatment



Adapted From: Chambers
“The 2 x 4 Model”, Routledge/CRC
press, New York, 2018



Summary

- Mental Illness is a primary causal risk factor for acquiring opioid and other addictions
- Opioid Addiction causes many often deadly secondary medical and neuropsychiatric complications
- Complex Comorbidities of Opioid, Mental illness and other addictions are the Rule; solo opioid addiction is rare
- The evidence-based standard of care for co-occurring disorders is *integrated* Addiction/Mental Health Care:
Team Care that provides and *integrates multiple* diagnostic/psychotherapeutic and pharmacological treatment tools for opioid addiction and comorbid disorders

THE 2X4 MODEL



A Neuroscience-Based Blueprint for the *Modern Integrated Addiction and Mental Health Treatment System*

RA Chambers “The 2 x 4 Model”, Routledge/CRC press/Taylor and Francis,
New York, 2018

Available ON Line (AMAZON/ Barnes and Noble/Routledge):

https://www.amazon.com/Model-Neuroscience-Based-Blueprint-Integrated-Addiction/dp/1138563854/ref=mt_paperback?encoding=UTF8&me=&qid=

Or directly from the author (RA Chambers) with a 30% discount.
robchamb@iupui.edu



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