



Co-Occurring Physical and Mental Health Disorders in patients with OUD

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- *Harm Reduction Counseling and Injectable Naltrexone in Homeless persons with Severe Alcohol Dep.
- *Preventing Addiction Related Suicide
- *PTSD Treatment in Persons with Severe Cannabis Dep
- *Contingency Management of Alcohol in Mentally Ill
- *Comparing CAMS to TAU after recent suicide attempts

Department of Defense

- *Suicide Prevention in Active Duty Soldiers

Dr. Chambers

- *Enfoglobe : Medical data analytics and education software
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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



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)

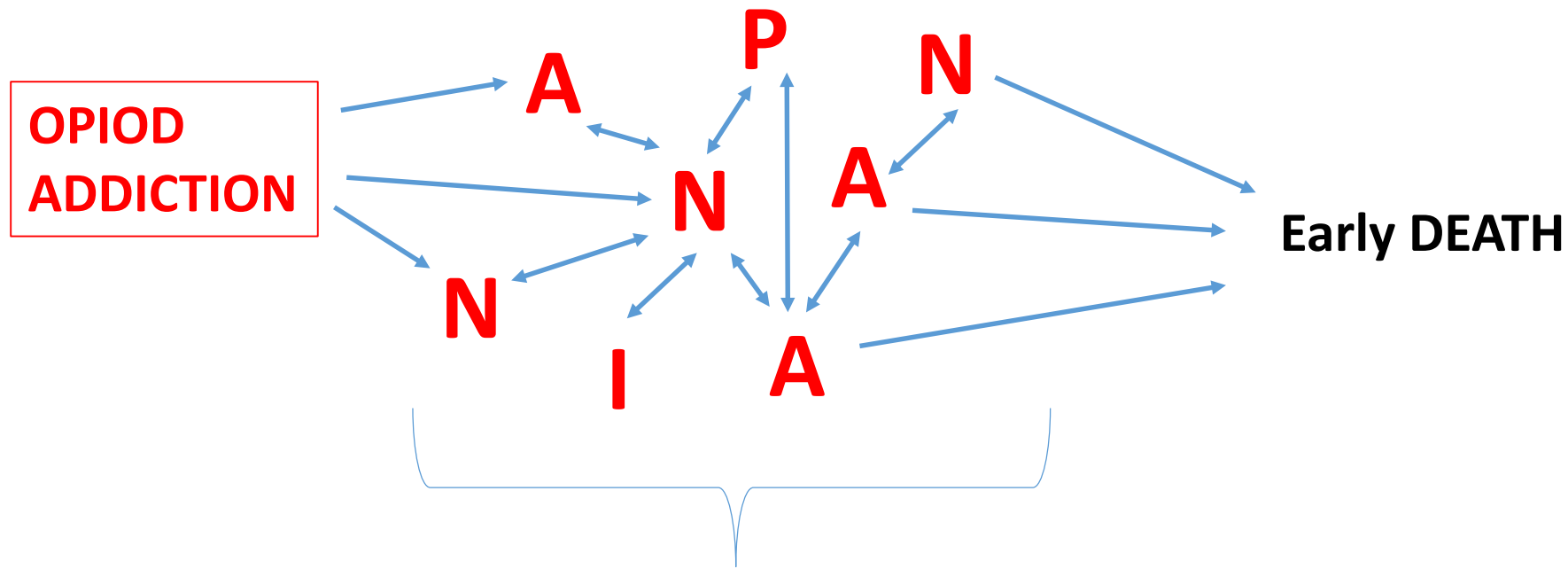
Secondary Addictions



Medical co-occurring disorders:

Opioid addiction generates a web of comorbidities

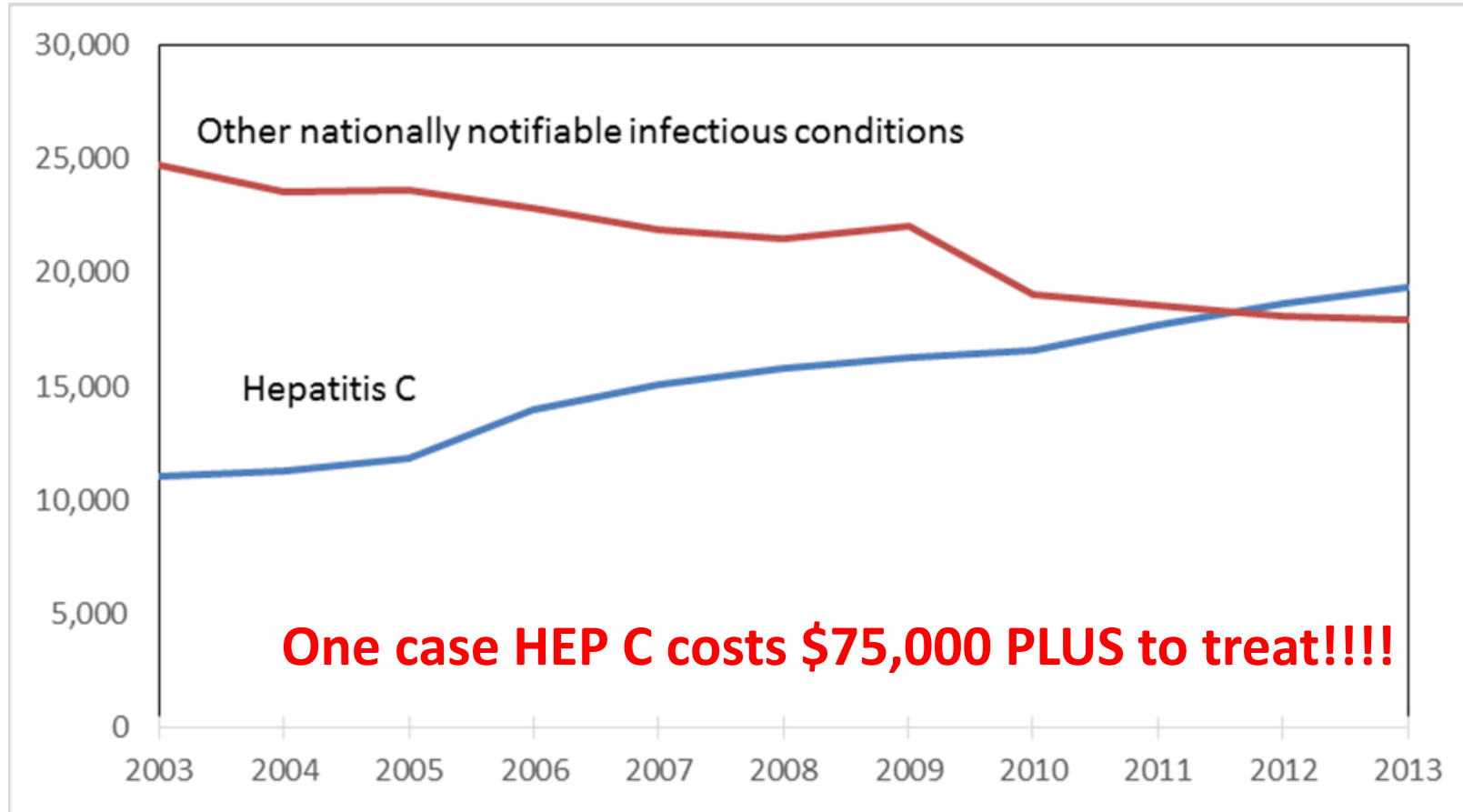
in which there are many ways to die.



Very EXPENSIVE ILLNESSES TO TREAT MEDICALLY!!



HCV Deaths and Deaths from Other Nationally Notifiable Infectious Diseases,* 2003- 2013



One case HEP C costs \$75,000 PLUS to treat!!!!

* TB, HIV, Hepatitis B and 57 other infectious conditions reported to CDC

Holmberg S, et al. "Continued Rising Mortality from Hepatitis C Virus in the United States, 2003-2013"
Presented at ID Week 2015, October 10, 2015, San Diego, CA





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



Co-Occurring Psychiatric and Substance Use Disorder in OUD

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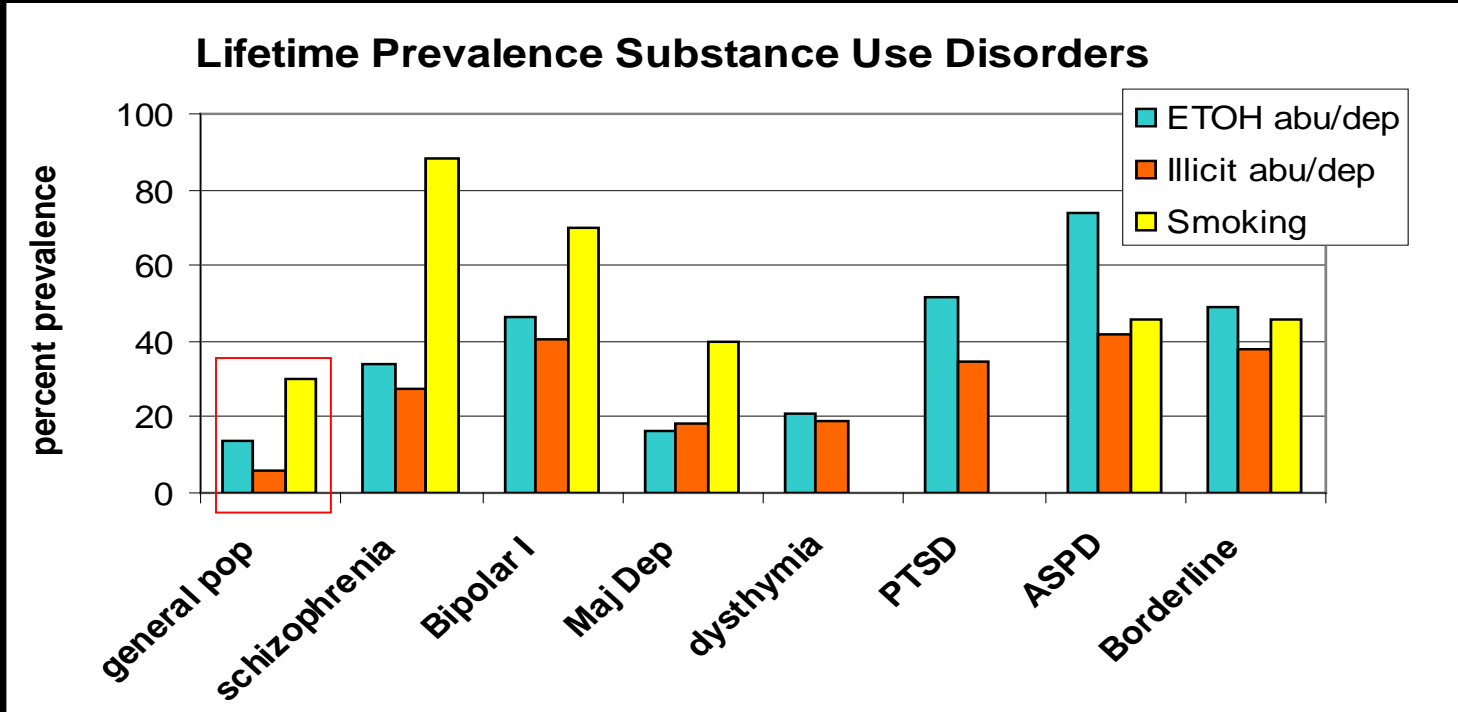


Co-Occurring Addictions and Mental Illness: “Dual Diagnosis Disorders”

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

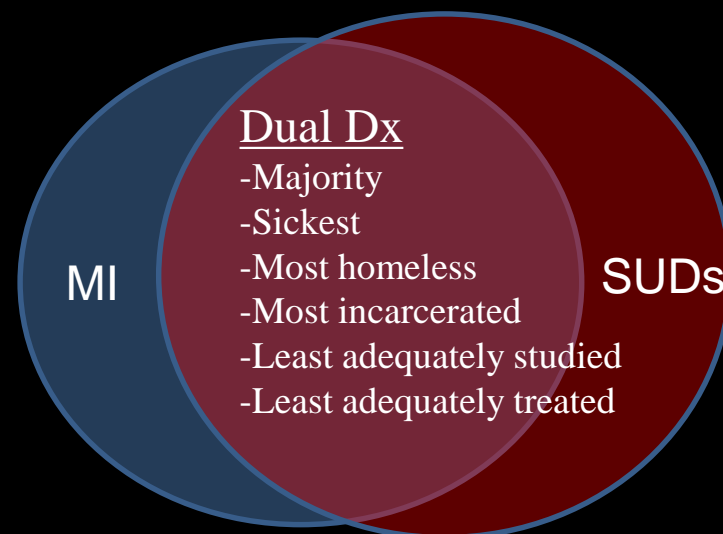


- General pop, schizophrenia, bipolar, unipolar, dysthymia (ECA data early 1980's) Regier et al. (JAMA,1990)

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

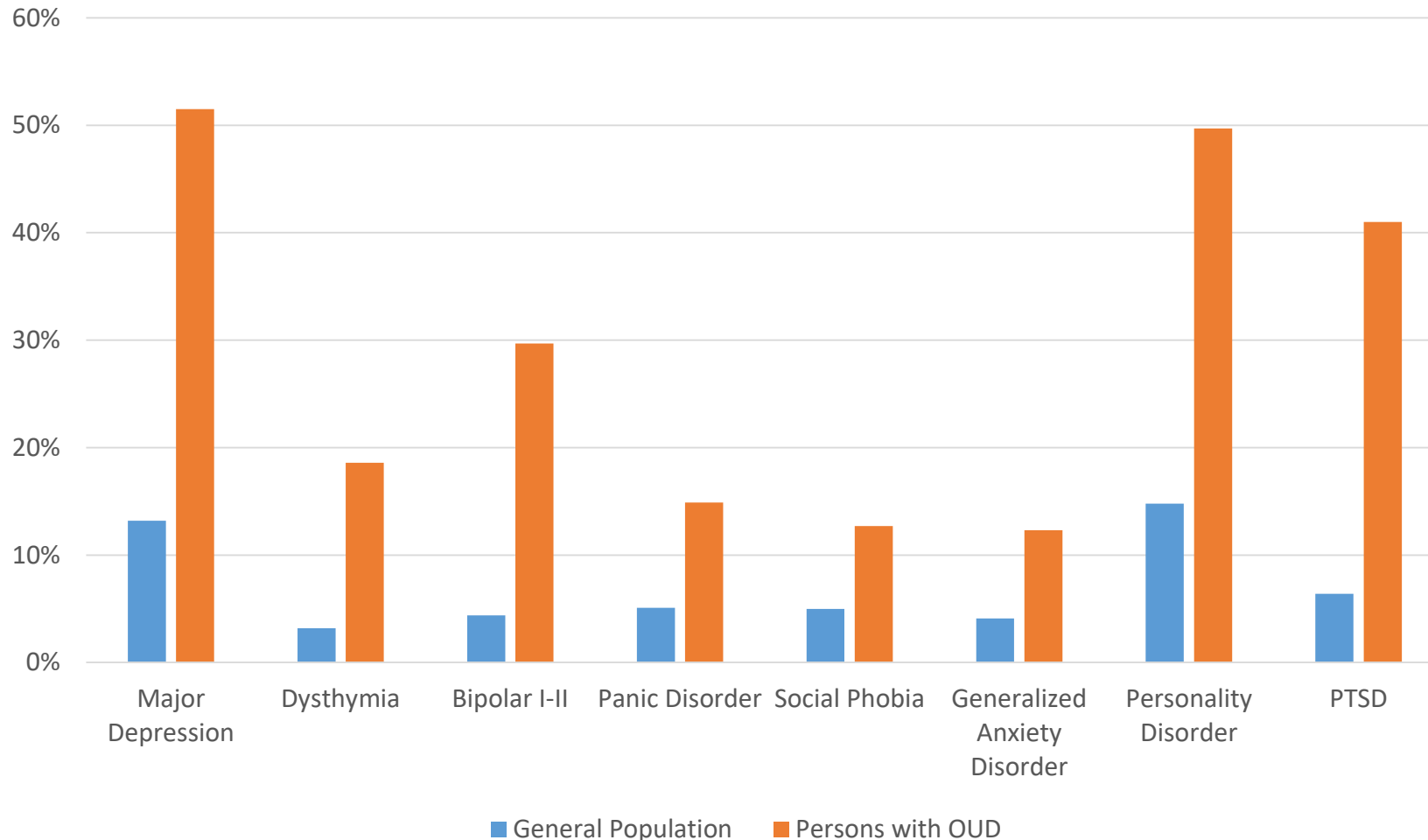
- Borderline (1980's – 1990s), Trull et al. (Clin Psy Rev, 2000)

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





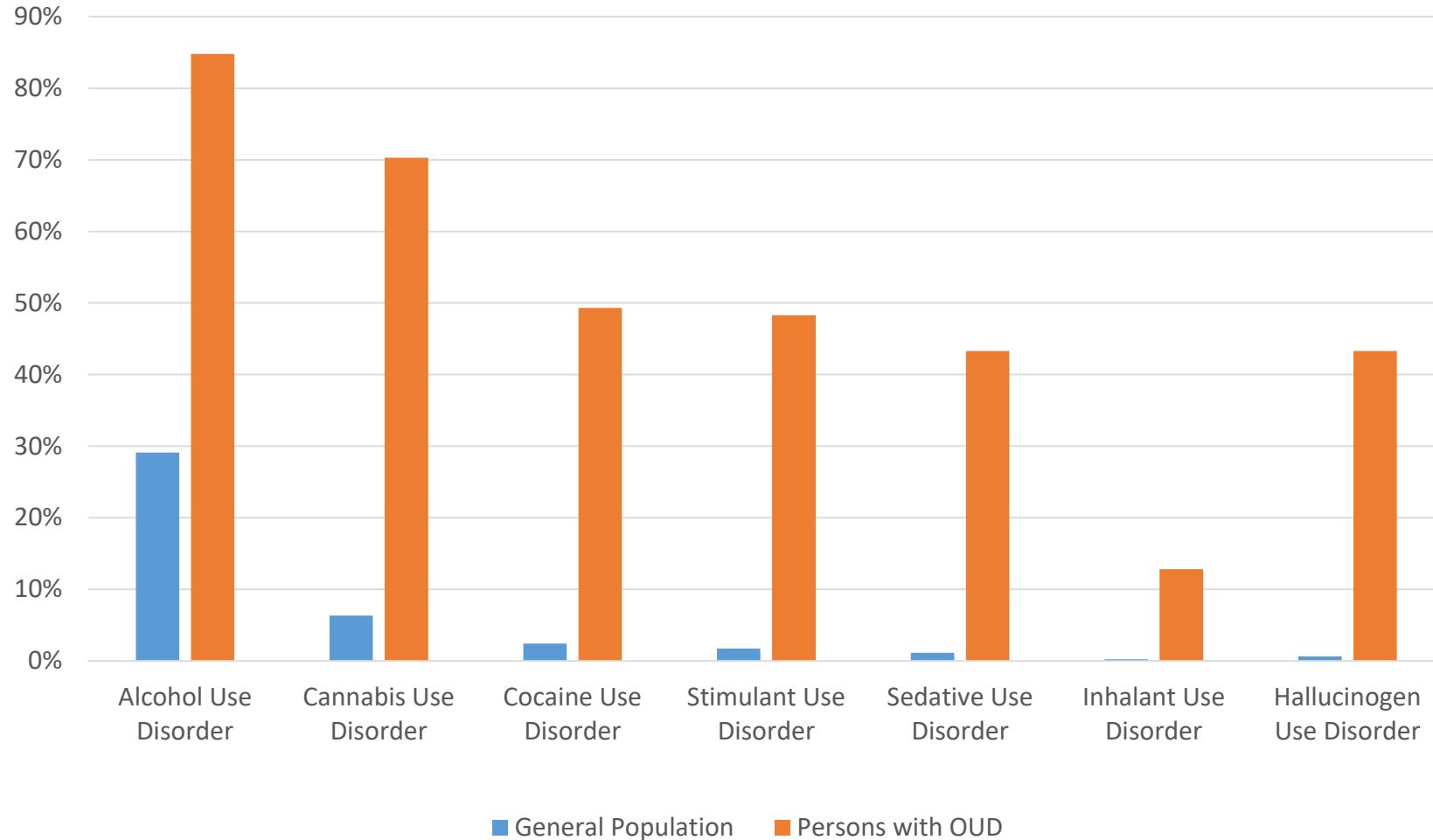
Lifetime Prevalence of Psychiatric Disorders: General Population vs OUD



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

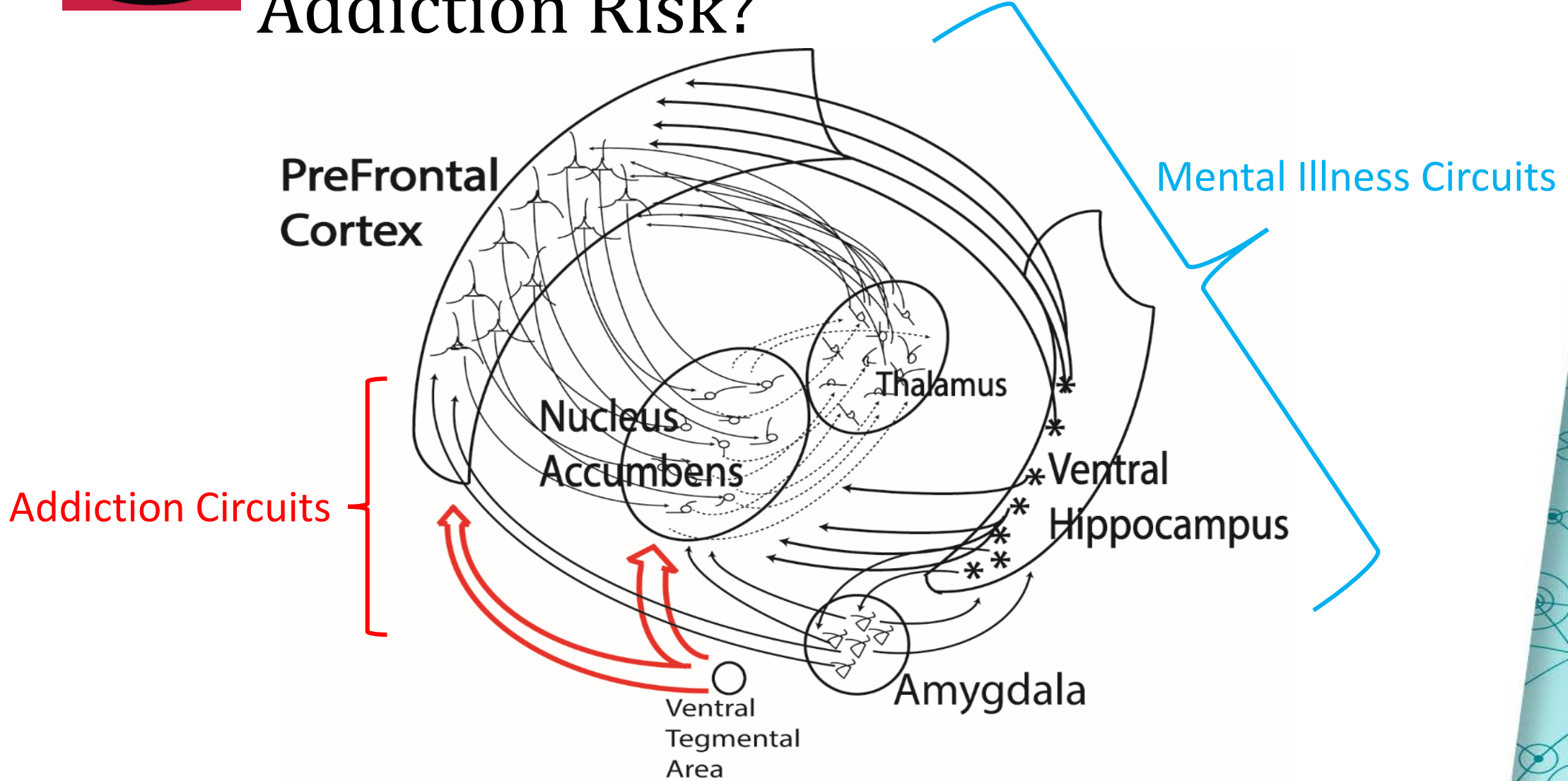


Psychiatric Disorders and Opioid Dependence Reciprocally Increase Risk

- 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



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)

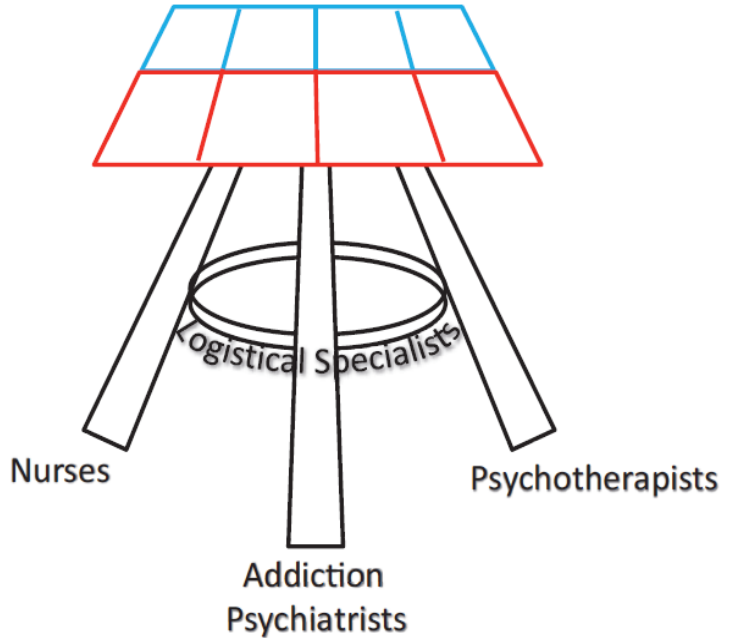
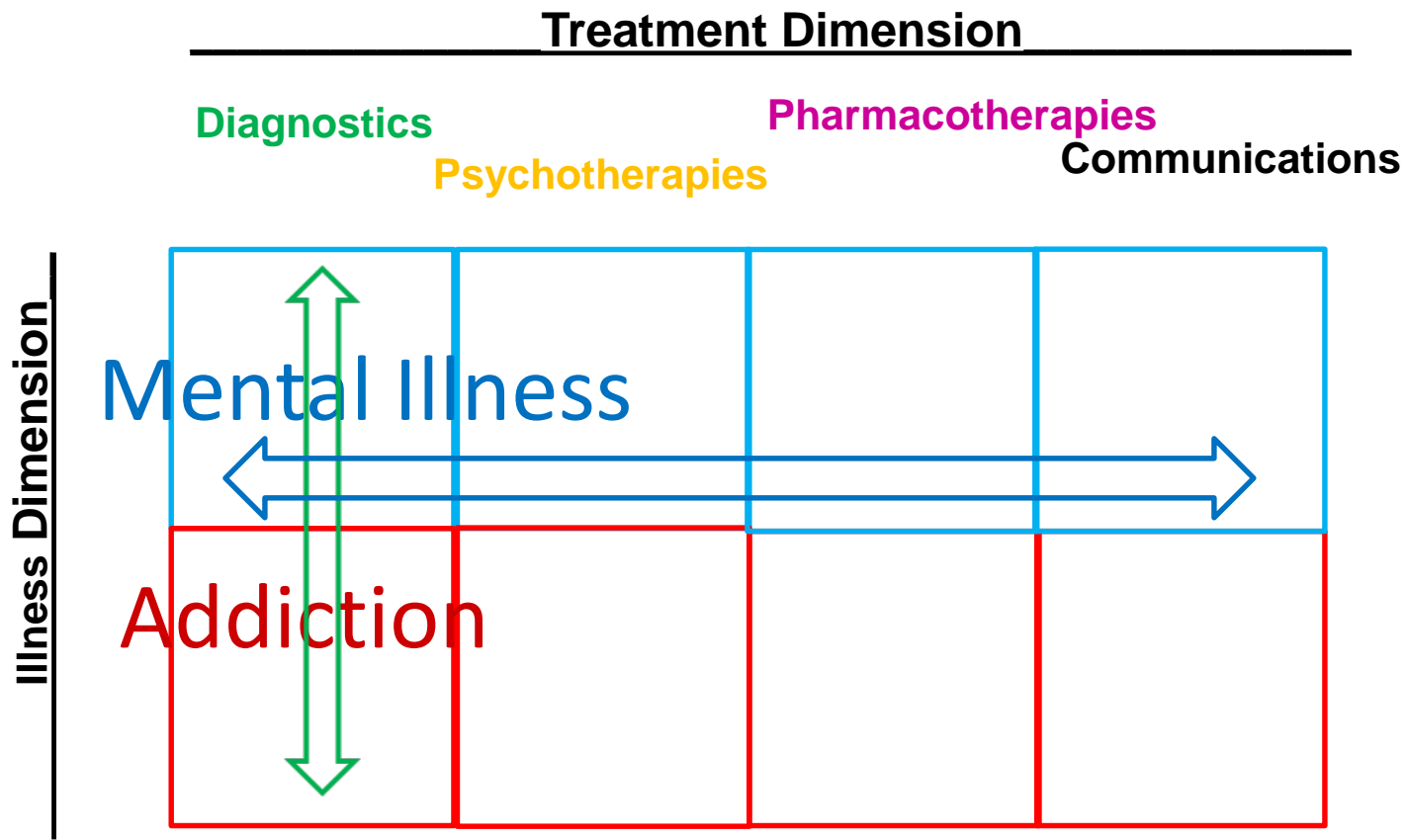
Sajid et al. (2016) "Prescription Drug Monitoring Program Data Tracking of Opioid Addiction Treatment Outcomes in Integrated Dual Diagnosis Care Involving Injectable Naltrexone", AM J Addictions, 25: 557-564



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

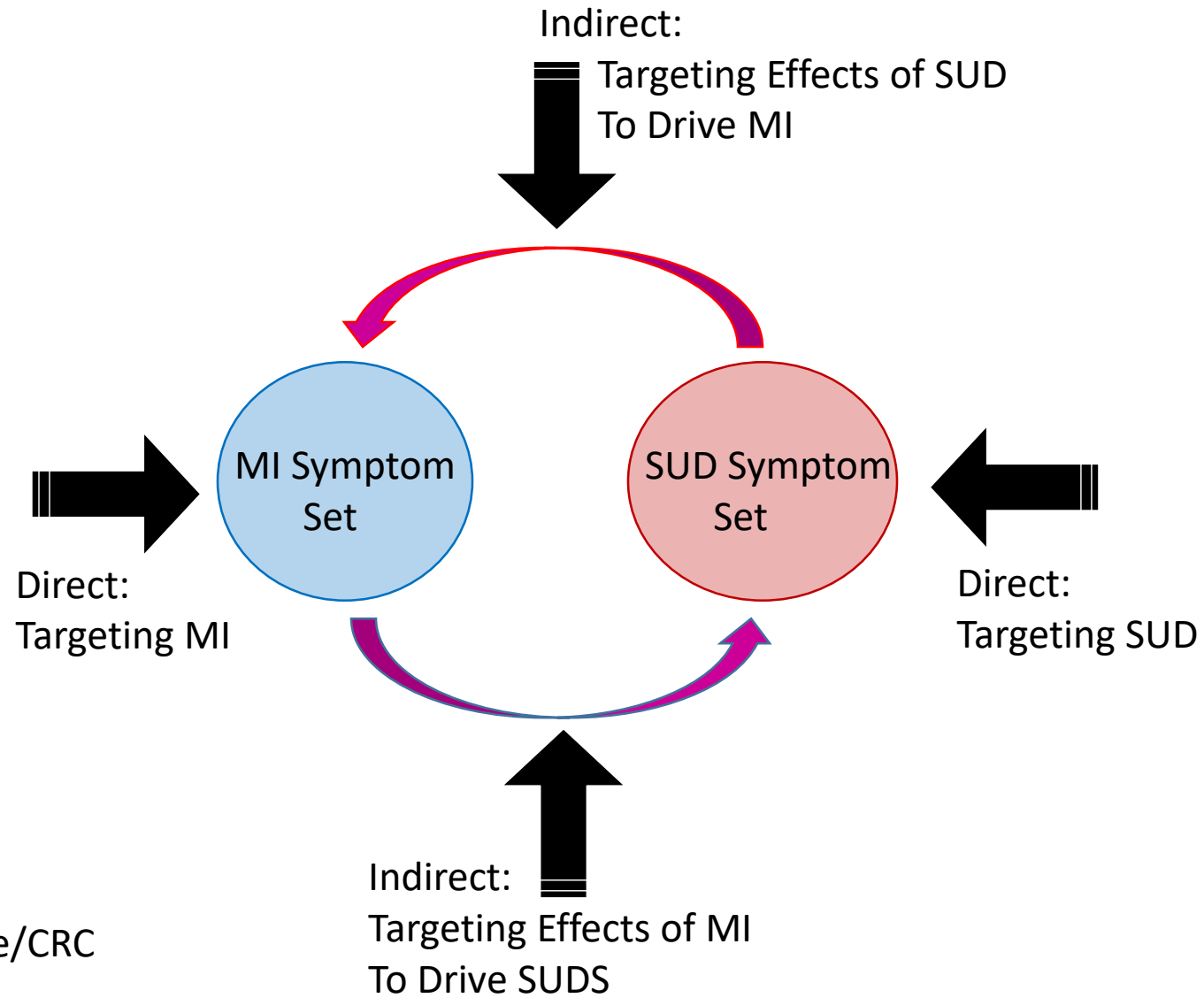


Adapted From: Chambers "The 2 x 4 Model", Routledge/CRC press, New York, 2018



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

- Opioid Addiction causes many often deadly secondary medical and neuropsychiatric complications
- Mental Illness is a primary causal risk factor for acquiring opioid and other addictions
- 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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