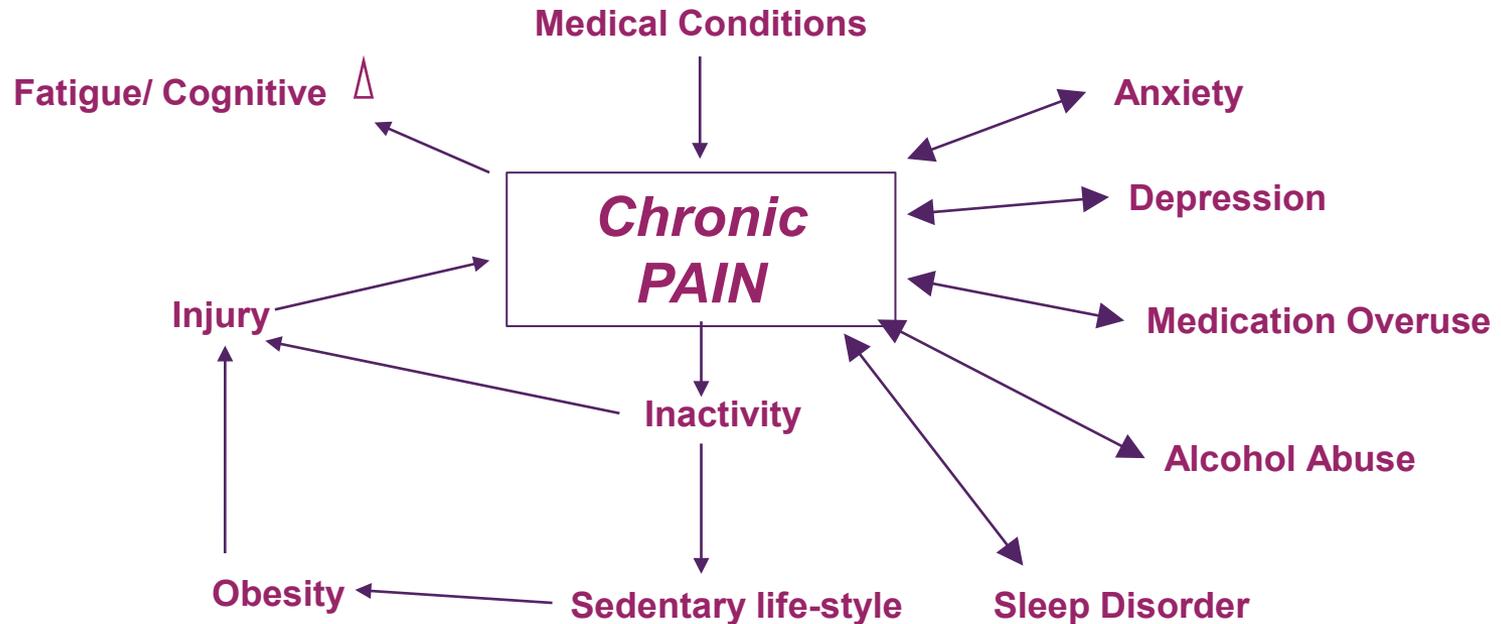


**NIH
HEAL
INITIATIVE**

Co-occurring Conditions in the Setting of Opioid Use Disorder and Pain

Dr. Walter J. Koroshetz, Director, National Institute of Neurological
Disorders and Stroke
Dr. Joshua Gordon, Director, National Institute of Mental Health

Inter-related comorbidities of PAIN



Alcohol Misuse Increases Pain, Pain Increases Alcohol Misuse

16-25% of chronic pain patients drink heavily or have AUD, 43%-73% of individuals with AUD have moderate to severe pain

Witkiewitz K & Vowles KE, 2018

A history of alcohol use necessitates higher opioid doses in managing post-operative pain, possibly due to mu-opioid-receptor mediated cross-tolerance

Kao et al, 2017; He L & Whistler JL, 2011

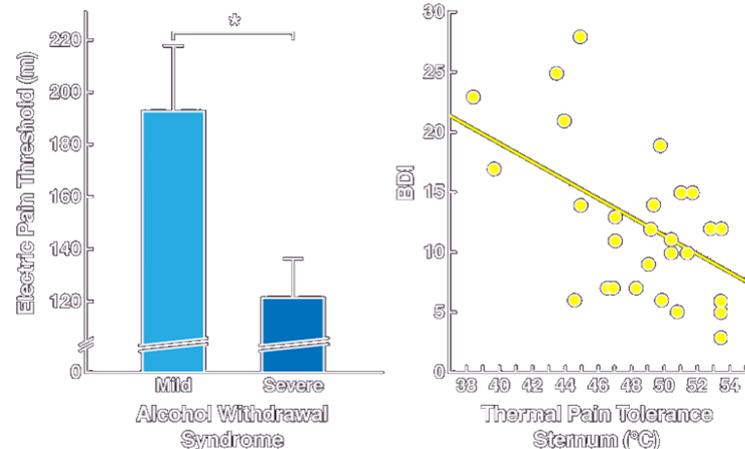
Acute alcohol use at binge levels is analgesic but chronic alcohol and withdrawal result in increased pain sensitivity

Thompson T et al., 2017; Edwards S et al., 2012

Pain predicts relapse to heavy drinking

Witkiewitz et al., 2015

Increased Pain Sensitivity in Alcohol Withdrawal



From: Jochum T, Boettger MK, Burkhardt C, Juckel G, and Bar KJ, 2010, Eur J Pain, 14:713-718.

Prevalence and Profile of High-Impact Chronic Pain in the US

Pitcher MH, Von Korff, Bushnell MC, Porter L. (2019) J of Pain. 20:146-160

2011 National Health Interview Survey Sample Questionnaire N=15,670		Population Estimates
Chronic pain-	pain experience on most days in last 3 months	40 m, 18.4%
Chronic pain without limitation (CPWL)	no activity limitations/participation restrictions.	29.9 m, 13.6%
High intensity chronic pain (HICP)	as above with addition of ≥ 1 activity limitation	10.6 m, 4.8%

Comparison with the Adult US Population

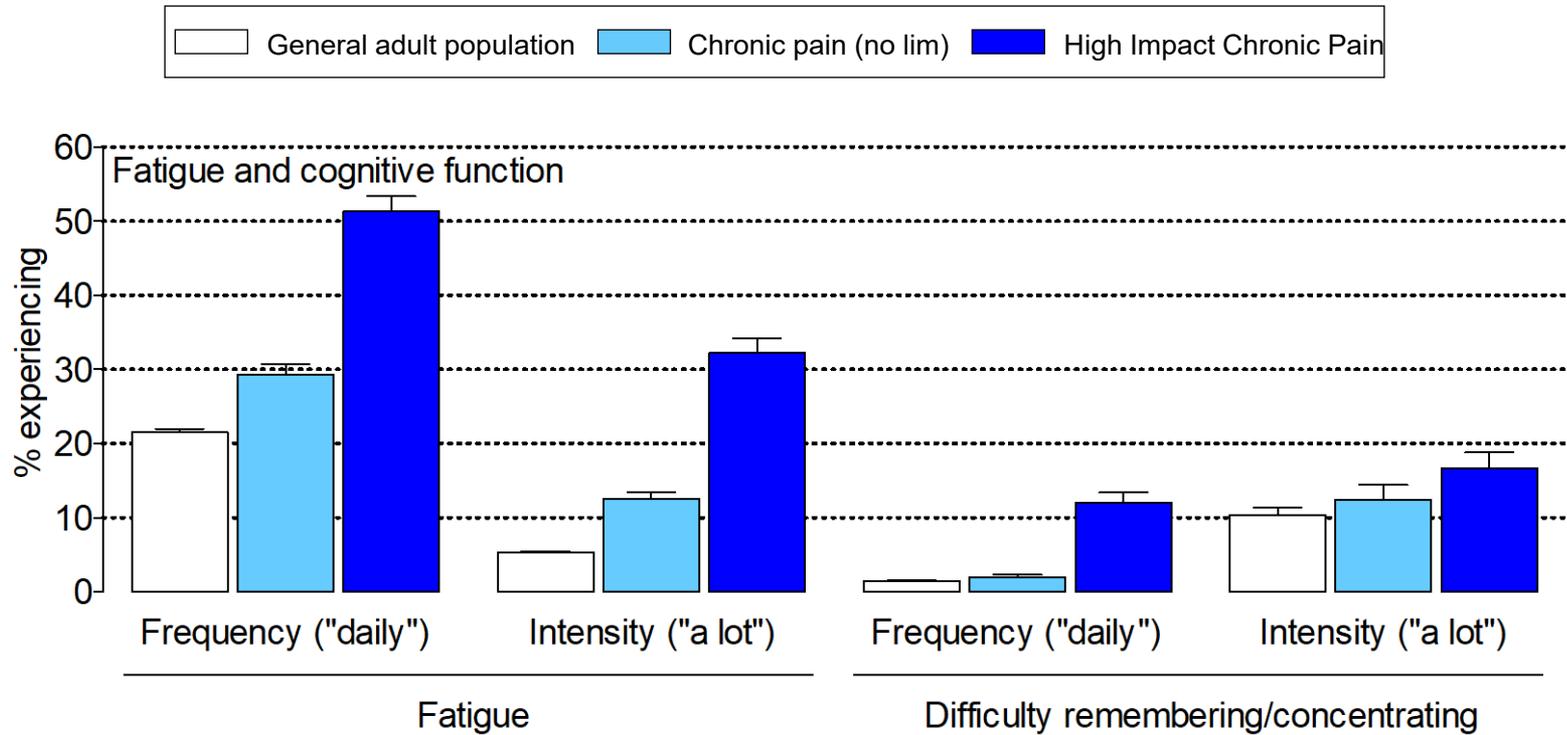
	Total adult	CPWL	HICP	OR(95% CI) for CPWL/HICP vs. No Pain	OR (95% CI) for HICP vs. CPWL
	Prevalence %	% in pop	% in pop		
Female	51.6	54.3	56.7	1.16 (1.03-1.3)	0.98 (0.8-1.22)
Black	11.6	8.3	15.6	0.68 (0.58-0.81)	1.76 (1.29-2.39)
Hispanic	14.3	9	9.5	0.5 (0.42-0.58)	1.2 (0.91-1.78)
> Grad 12 no diploma	14.1	15.1	28.2	2.25 (1.85-2.73)	2.5 (1.75-3.56)
Divorced/ Separated	12.7	16	24.1	1.34 (1.17-1.54)	1.63 (1.23-2.17)
Obese BMI >30	33	42	47.5	1.67 (1.45-1.92)	1.14 (0.87-1.51)
45-64 y.o.*	34.6	42.6	55.8	4.21 (3.03-5.85)	7.29 (3.56-14.95)
>65 y.o.*	16.7	22.8	27.1	4.22 (3.01 5.92)	6.04 (2.9-12.58)

* Compared to 18-24 y.o.

Likelihood of chronic pain co-occurring with other conditions

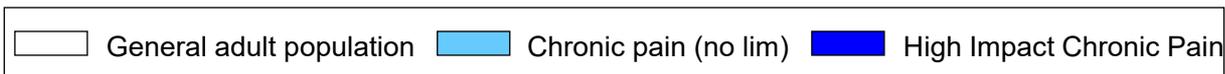
Total Adult Population				
	Prevalence in Adults	CPWL % in pop	HICP % in pop	Odds Ratio (95% CI) for Health Condition if HICP vs. CPWL
Chronic pain (pain most/every day)	18.4	N/A	N/A	NA
Weak/failing kidneys	2	3.6	10.5	1.66 (1.05–2.61)
Stroke	2.7	3.9	12.7	2.17 (1.40–3.36)
Arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia	22.5	50.8	68.3	1.54 (1.20–1.98)
Emphysema	1.8	3.3	11.3	1.71 (1.04–2.81)
Diabetes	9.1	13.7	27.7	1.49 (1.12–1.98)
Chronic bronchitis	4.2	7.5	15.7	1.57 (1.11–2.21)
Heart condition/disease	7.4	12.7	20.3	1.20 (0.85–1.69)
Asthma	12.5	16.2	25	1.39 (1.04–1.86)
Liver condition	1.3	2.5	6.1	1.70 (1.03–2.83)
Cancer/other malignancy	8.2	12.9	18.1	1.23 (0.91–1.66)
Obese (BMI ≥ 30)	33.1	42	47.5	1.06 (0.84–1.32)
Coronary heart disease	4.5	8.2	14.1	0.97 (0.63–1.50)
Hypertension	29.1	45.1	60.6	1.09 (0.86–1.37)
Heart attack	3.3	5.6	9.9	0.94 (0.61–1.44)
Angina	4.5	3.8	7.2	0.99 (0.57–1.72)

Co-Morbidities of Fatigue & Cognitive Difficulties

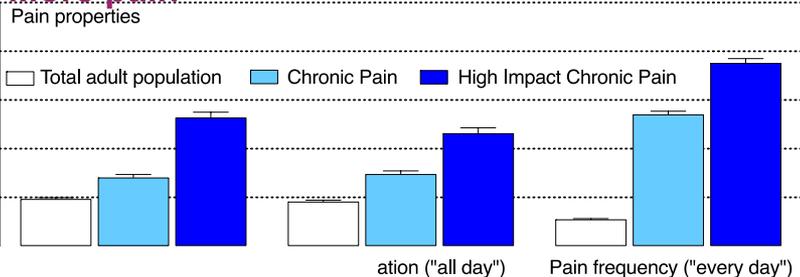


Pitcher et al. 2019

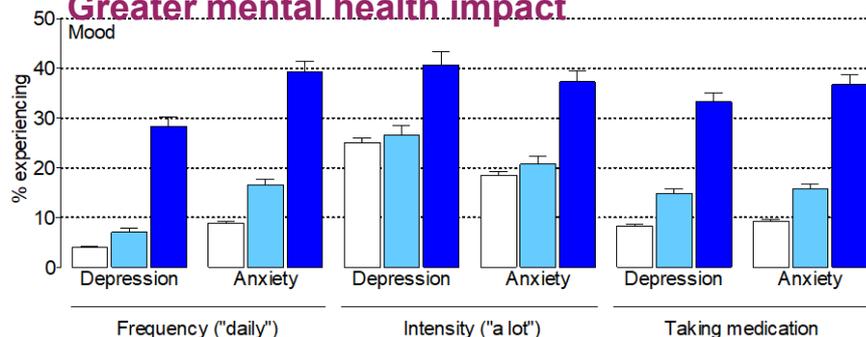
Psychosocial burden of High Impact Chronic Pain



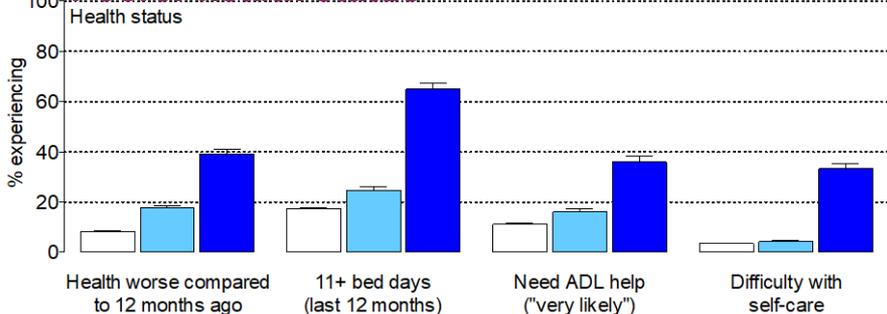
More pain



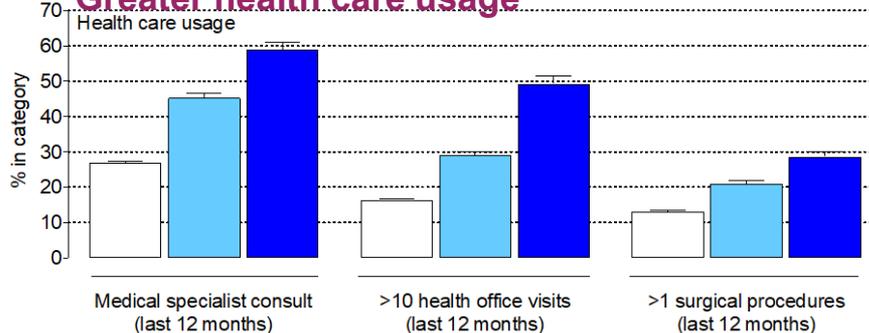
Greater mental health impact



Poorer health status



Greater health care usage



Pitcher et al. 2019

Take-home point: Chronic pain is part of a complicated set of health disorders!

- Chronic pain is often set in a web of disorders contributing to disability
 - Chronic pain is associated with mental health disorders
 - Patients with chronic pain frequently have multiple co-morbid medical conditions
 - Patients with high intensity chronic pain are some of the least well in our population
- Comorbidities will likely complicate moving a treatment from a clinical trial in a “pure” pain condition to the general population





Opioid Use Disorder and Mental Health

Joshua A. Gordon, M.D., Ph.D.
Director, NIMH

March 18, 2020

Follow me on Twitter: [@NIMHDirector](https://twitter.com/NIMHDirector)



National Institute
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MISSION

To transform the understanding and treatment of mental illnesses through basic and clinical research, paving the way for prevention, recovery, and cure.

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Research = Hope

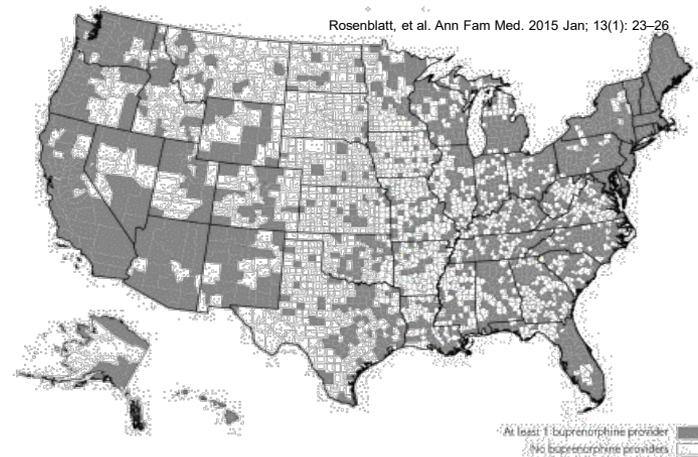


Agenda

- Opioid Misuse and Mental Health
- Opioid Use Disorder and Suicide
- HEAL and Other Current Efforts

Opioid Misuse and Mental Health

- 11.7M adults misuse opioids
- 43% of adults who misuse opioids have a mental illness
- 51% of opioid prescriptions go to people with mental illness
- 80% of people with OUD receive no treatment
- >47,000 people died from opioid overdoses in 2017



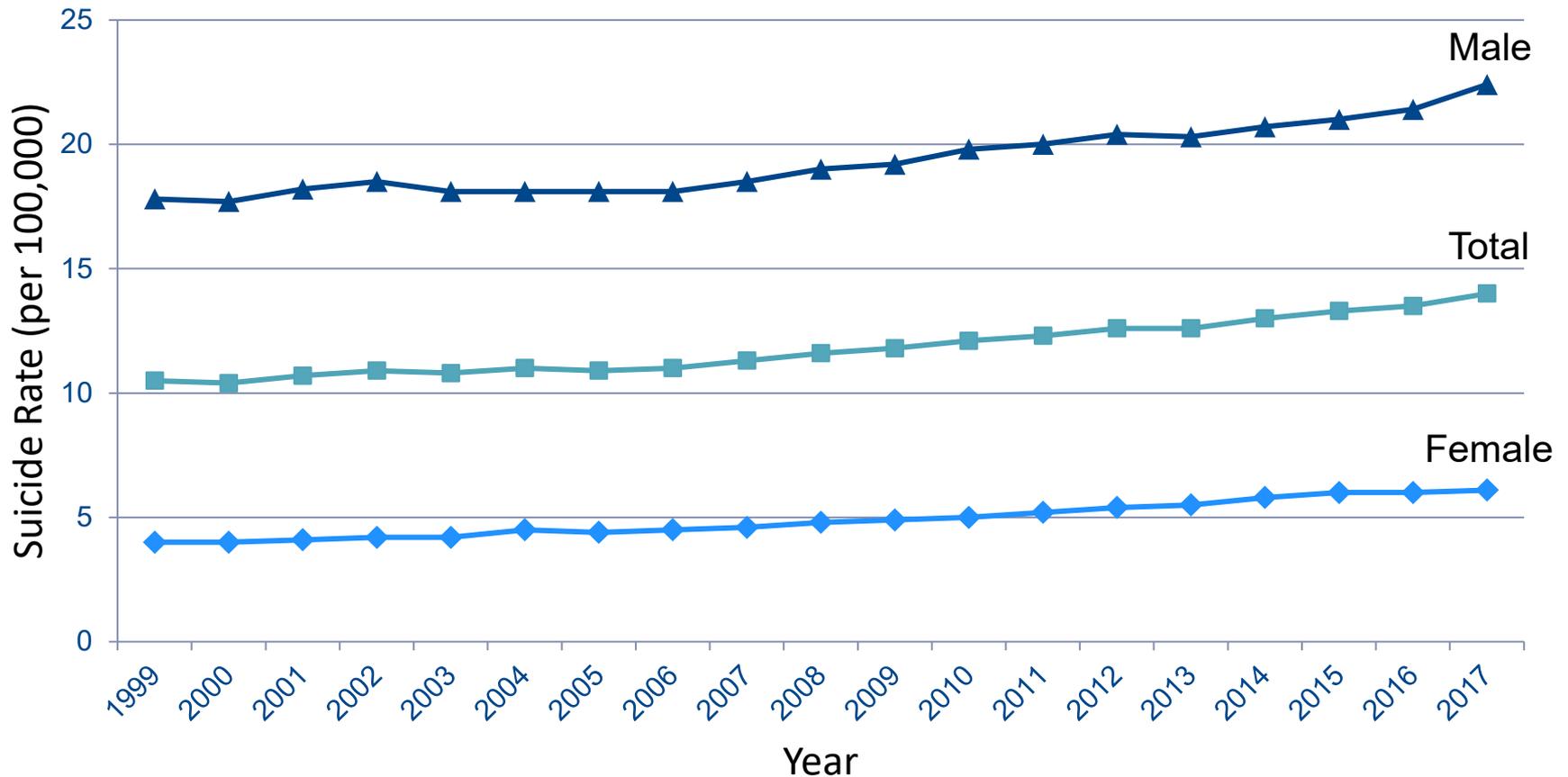
https://www.samhsa.gov/data/sites/default/files/report_2734/Spotlight-2734.html

Rosenblatt et al., *Annals of Family Medicine*, 2019



Opioid Use Disorder and Suicide

Age-Adjusted Suicide Rates in the United States (1999-2017)



Data courtesy of CDC



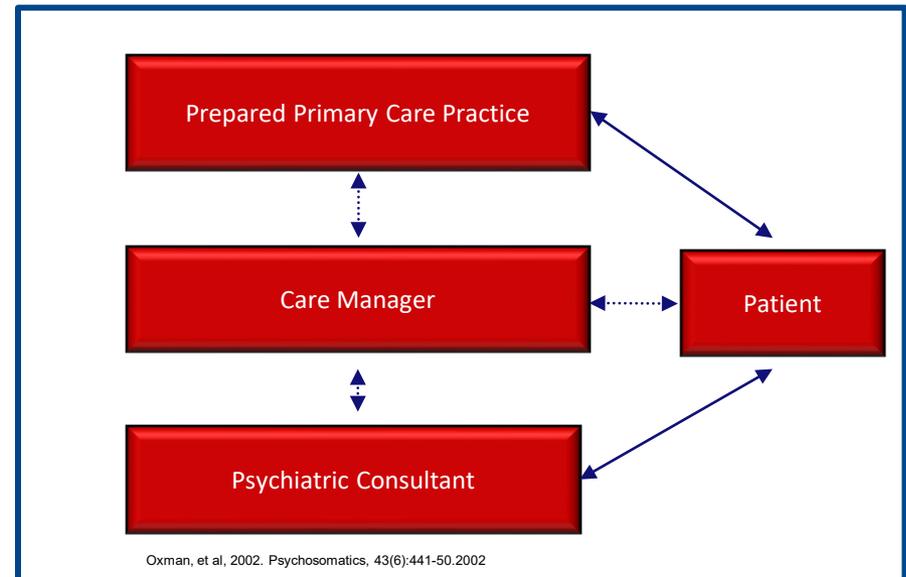
HEAL: Collaborative Care for Mental Illnesses

- NIH will be funding clinical trials of collaborative care models to treat people with opioid use disorder and co-occurring mental illnesses, which aim to:
 - demonstrate the definitive efficacy of collaborative care for the treatment of substance use disorders and co-occurring mental illnesses
 - show how collaborative care can be implemented in community health centers in the areas hardest hit by the twin epidemics of opioid overdose and suicide deaths



Collaborative Care Models for Mental Illnesses

- 80+ RCTs demonstrate comparative effectiveness
- Treatment access, continuity, and quality all improve with collaborative care
- Services are “high value” and reimbursable by many public and commercial payors



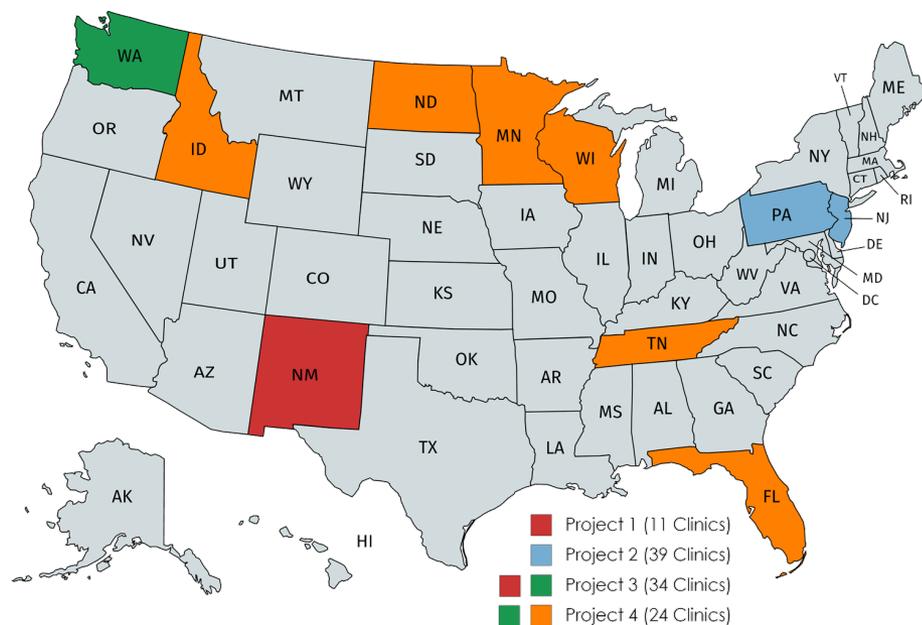
RFA-MH-19-525 NIH HEAL Initiative

Effectiveness Trials to Optimize, Implement, Scale, and Sustain the Collaborative Care Model for Individuals with OUD and Mental Health Conditions



Medication Assisted Treatment for OUD within Collaborative Care Models for Mental Illnesses

- 4 multi-site pragmatic RCTs
- Rural, urban, and suburban locations of high need
- Diverse patient populations, to include racial and ethnic minorities, pregnant women, and participants <18 YO
- Clinics vary regarding implementation readiness and existing site resources
- Common measures will permit “mega-analyses” of pooled data



Discussion