



Primary Care-Based Treatment *of* Opioid Use Disorder

Or: “How I learned to stop stigmatizing and prescribe buprenorphine”

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Our goals for today's discussion:

- What is the Opioid Crisis?
- Who is affected by it?
- What is the biologic basis of addiction?
- What treatments are available?
- How can this need be met in primary care?
- What will this look like here at Heater Road?

The Opioid Epidemic

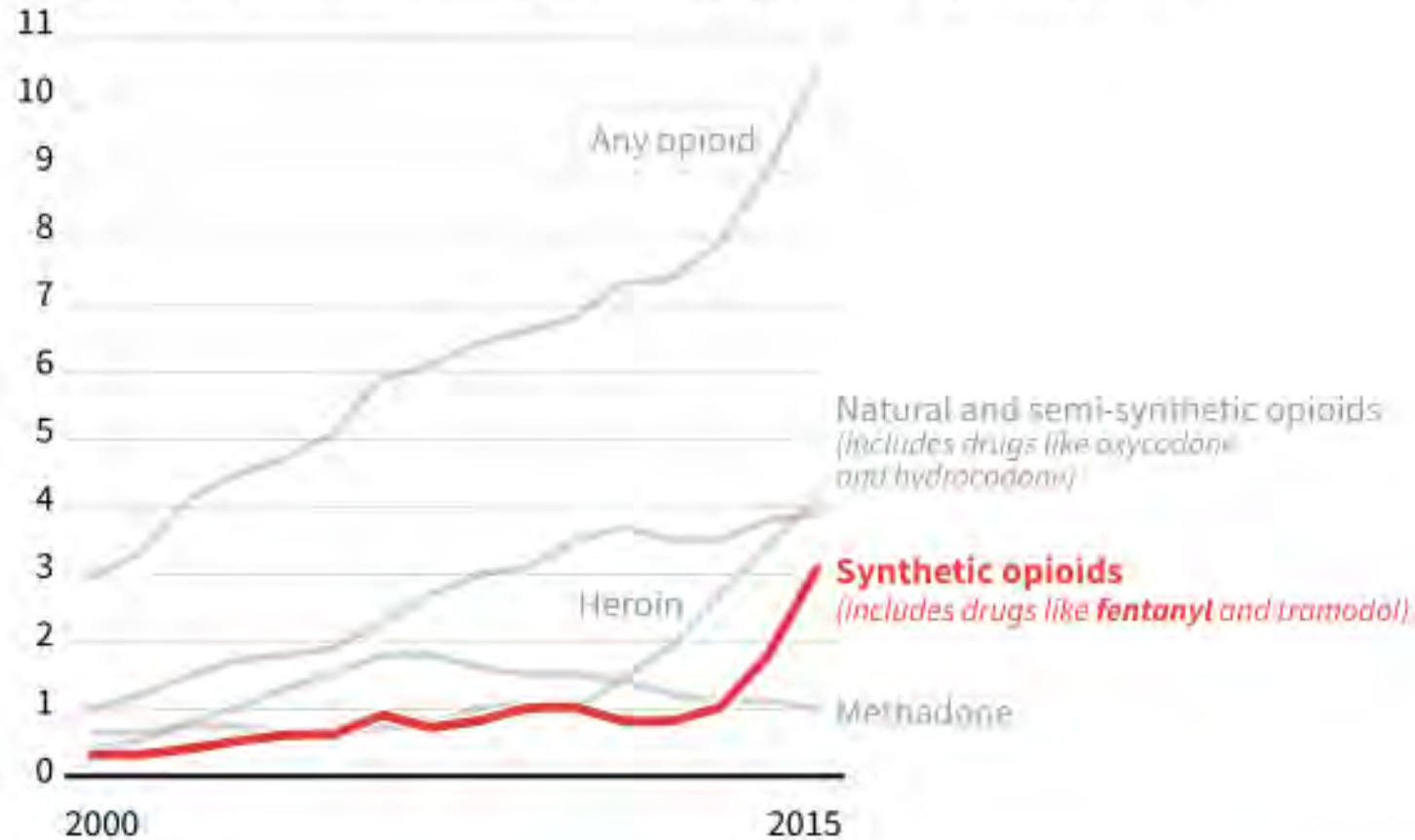
- 5 million Americans report using prescription opioids non-medically
- 2.5 million meet criteria for opioid dependence
- Drug overdoses > MVAs for leading causes of death
- 1 in 5 pregnant women filled an opioid prescription during pregnancy



*Substance Abuse and Mental Health Services Administration.
Results from the 2012 National Survey on Drug Use and Health.
Department of Health and Human Services.*

Opioid-Related Deaths, Especially From Synthetic Opioids Like Fentanyl, Are On The Rise In The U.S.

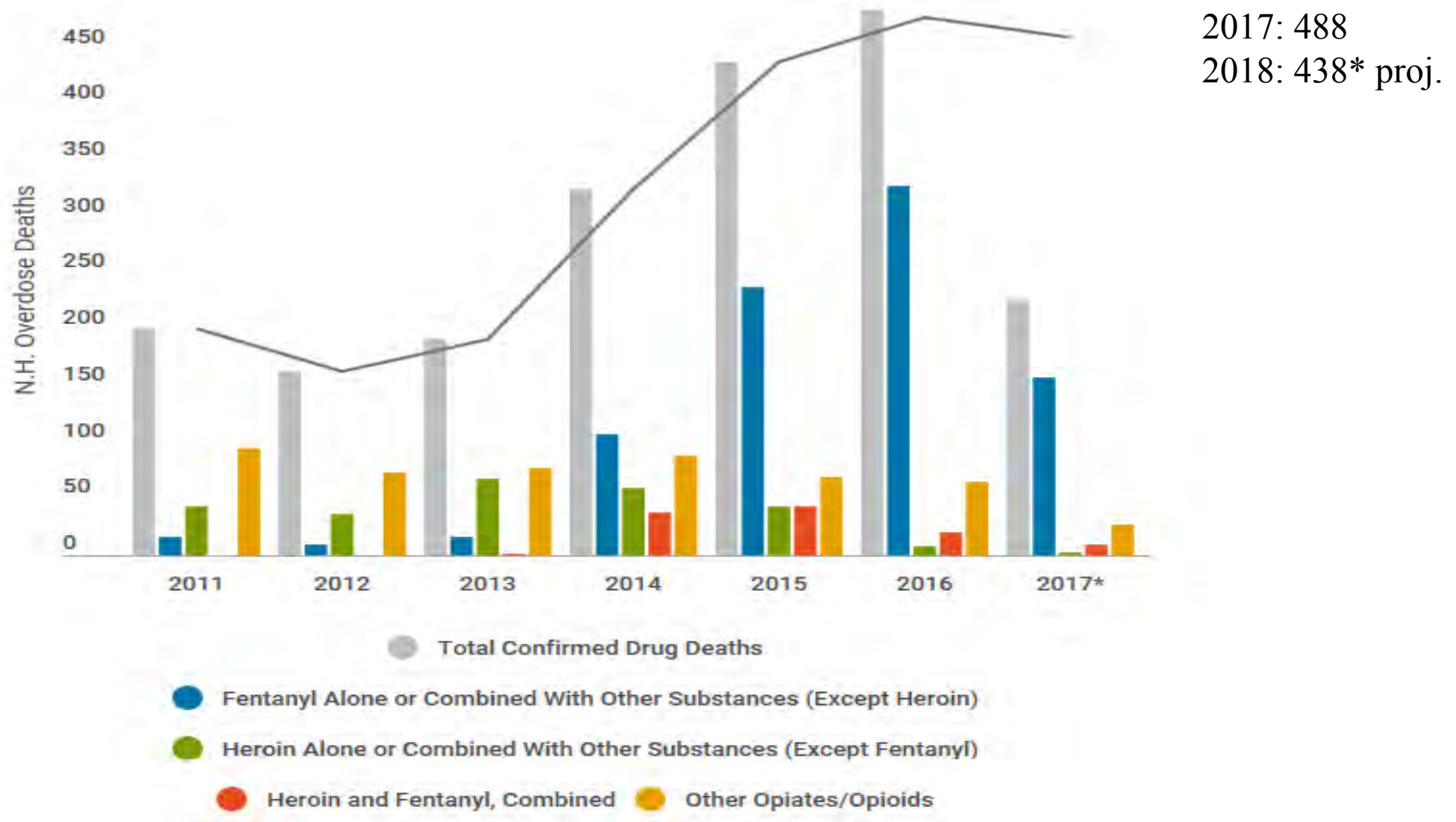
Drug overdose deaths involving opioids, by type, per 100,000 population



Source: CDC

National Vital Statistics System
Mortality File

NH Drug Monitoring Initiative September 2017

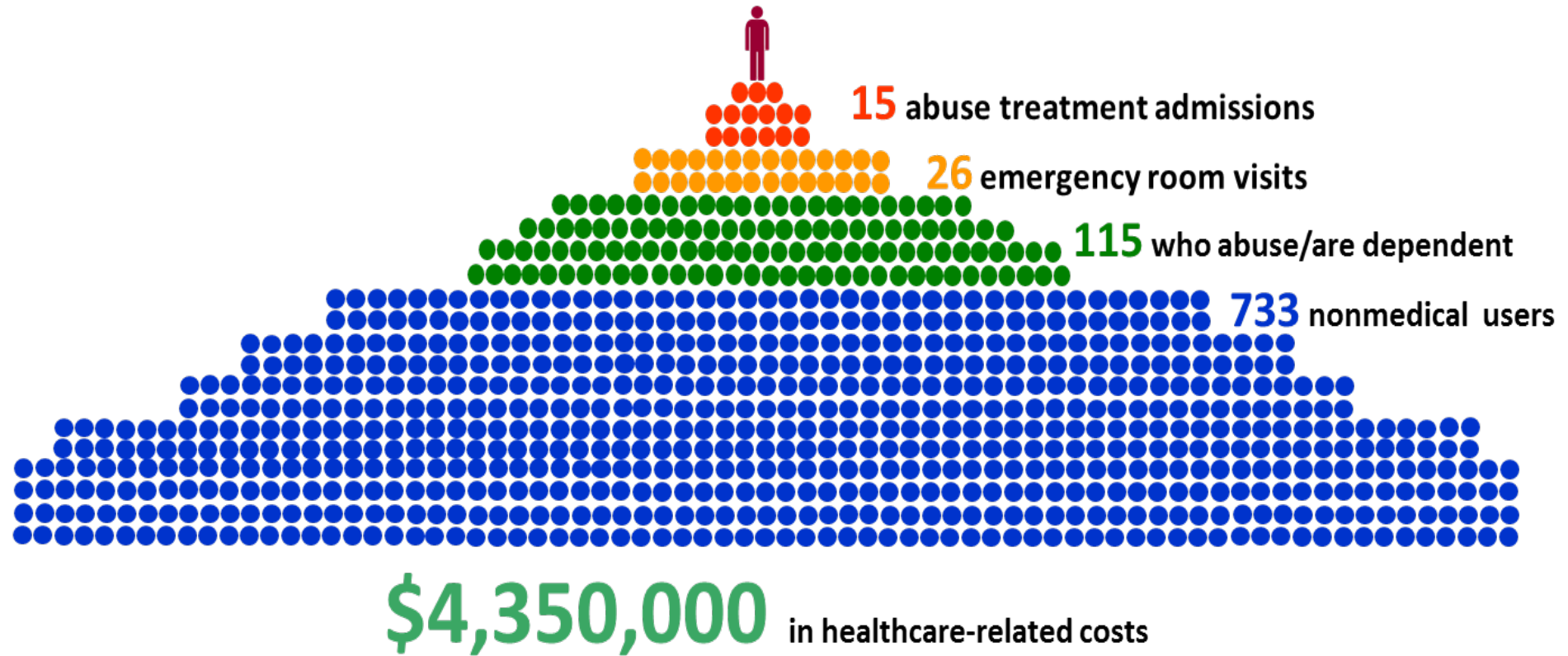


**EVERY DAY,
115 AMERICANS
DIE AFTER
OVERDOSING
ON OPIOIDS.**



Deaths are the tip of the iceberg

For every **1** opioid overdose death in 2010 there were...



Who is affected?



*All these people (and many more) died of a heroin overdose in 2015
Project Heroin, Palm Beach County, Florida <https://www.palmbeachpost.com/wall/>*

So what is causing this?

At first ... DOPAMINE

Dopamine is the brain chemical most closely linked to intense feelings of pleasure and well being

Eating Chocolate = increase x 1.5

Having sex = increase x 2

Nicotine = increase x 2.5

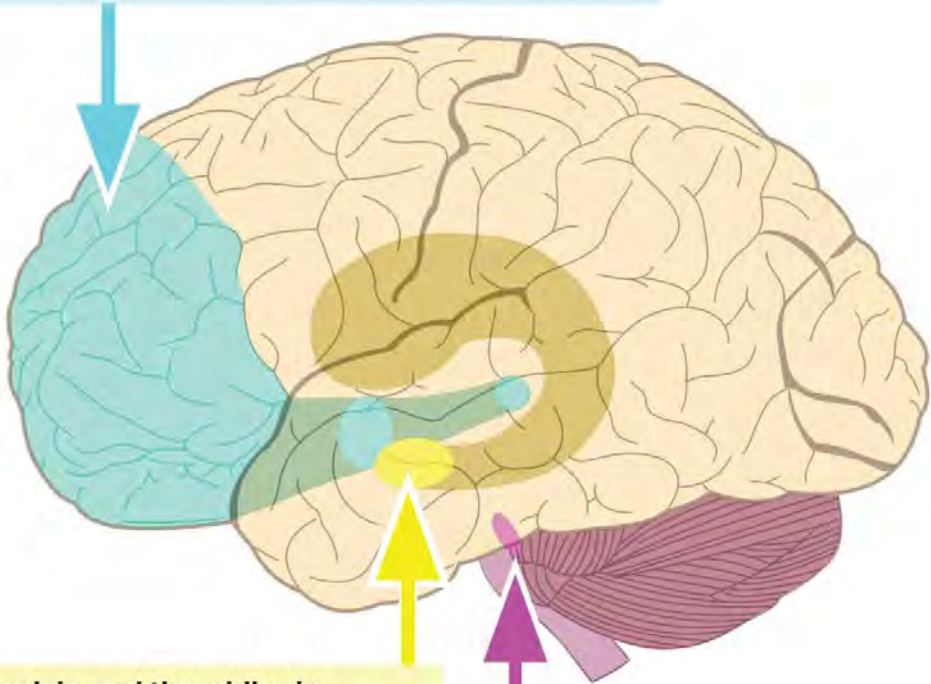
Using Meth, Opiates = x up to 10

Opioids Do More Than Stimulate The Pleasure Center of the Brain

Neuroscientists are still learning where drugs like heroin and fentanyl target, and how repeated exposure to them reshapes the brain.

Prefrontal cortex and the central reward pathway

There is a natural link between pleasure and complex thoughts such as decision-making and planning. With long-term opioid abuse, this pathway becomes dysregulated.



Amygdala and the midbrain

The urge to keep using opioids is born here. The midbrain helps steer behavior based on what it has experienced.

Locus coeruleus and the brain stem

Opioids can suppress the brain stem's ability to control breathing and heart rate. During overdose, this can kill.

^Brain Disease Model of Addiction. Volkow, Koob, McClellan, NEJM 2016

<- Philadelphia Inquirer, “**How opioids reshape your brain, and what scientists are learning about addiction**” online edition, updated July 26,2018.
<http://www.philly.com/philly/health/addiction/what-science-knows-about-how-opioids-reshape-your-brain-20180724.html>
accessed 1/10/2019

SOURCE: Adapted from Hugh Guiney / Wikimedia Commons

IAN HAYDON / Staff

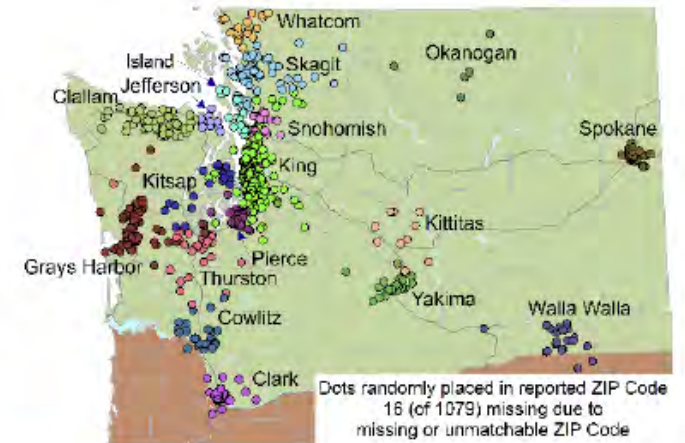
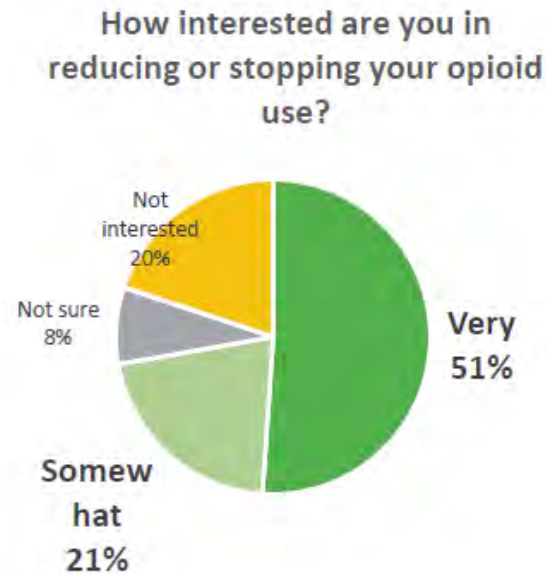
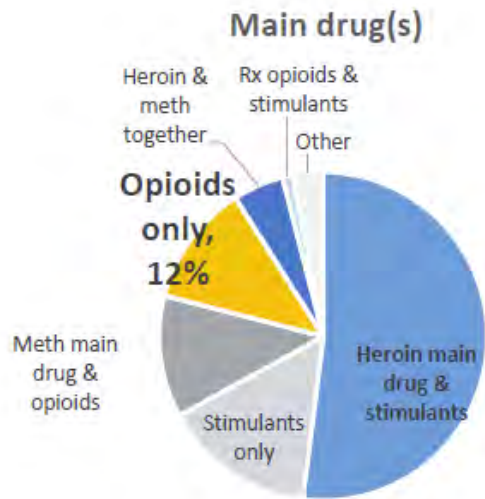
Need and interest in treatment

Despite what we may hear, see & believe:

- *most people with substance use disorders do NOT want to be using drugs and alcohol in a harmful way*

C. Frost, Madeline & C. Williams, Emily & Kingston, Susan & J. Banta-Green, Caleb. (2018). *Interest in Getting Help to Reduce or Stop Substance Use Among Syringe Exchange Clients Who Use Opioids*. Journal of Addiction Medicine. 1. 10.1097/ADM.0000000000000426.

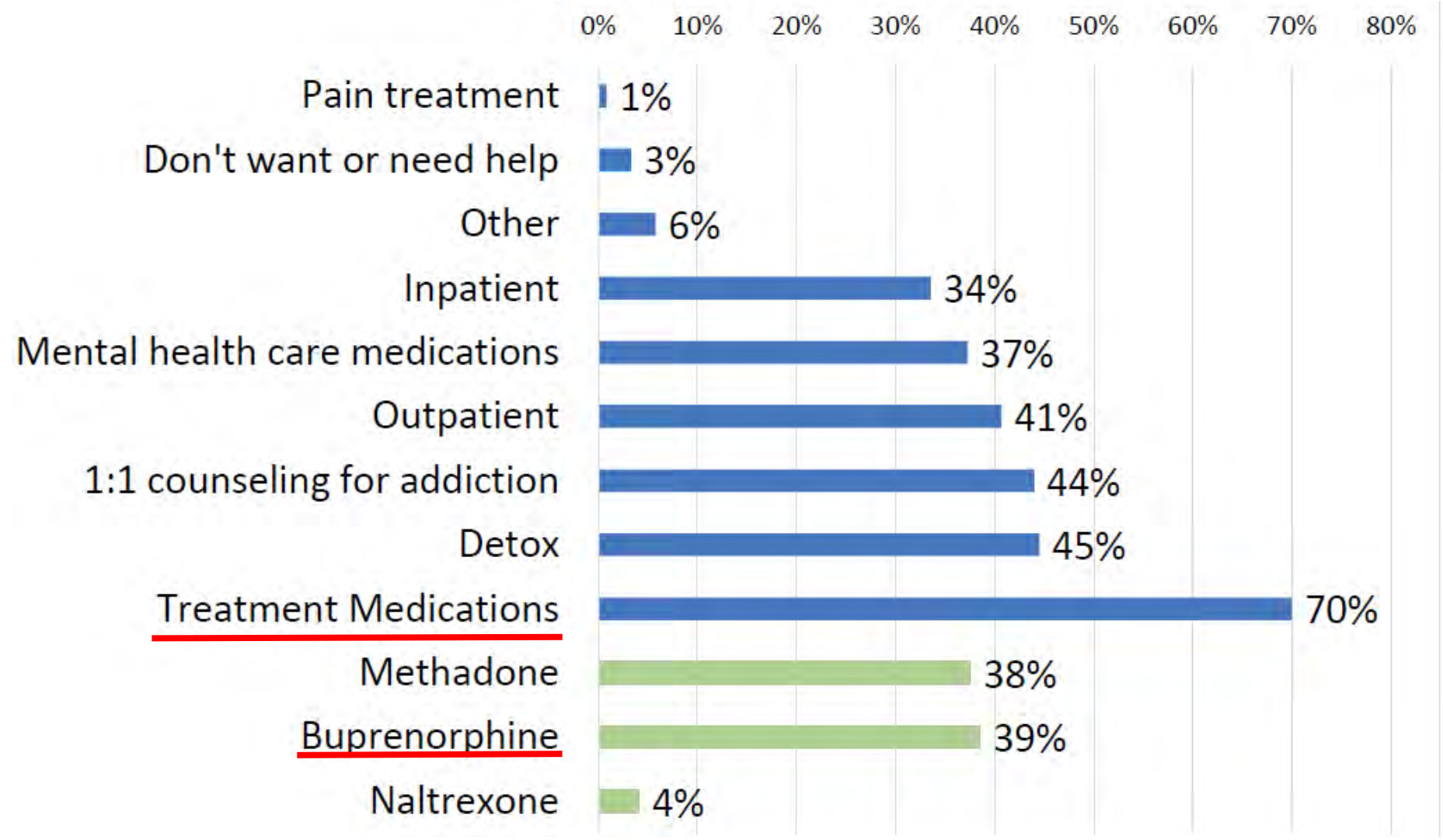
Background – 2017 WA State Syringe Exchange Survey



<http://adai.uw.edu/pubs/pdf/2017syringeexchangehealthsurvey.pdf>



What treatment options would you be interested in if they were easy to get?





Drug Dependence, a Chronic Medical Illness

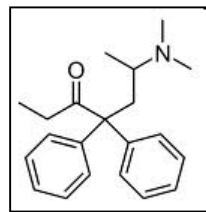
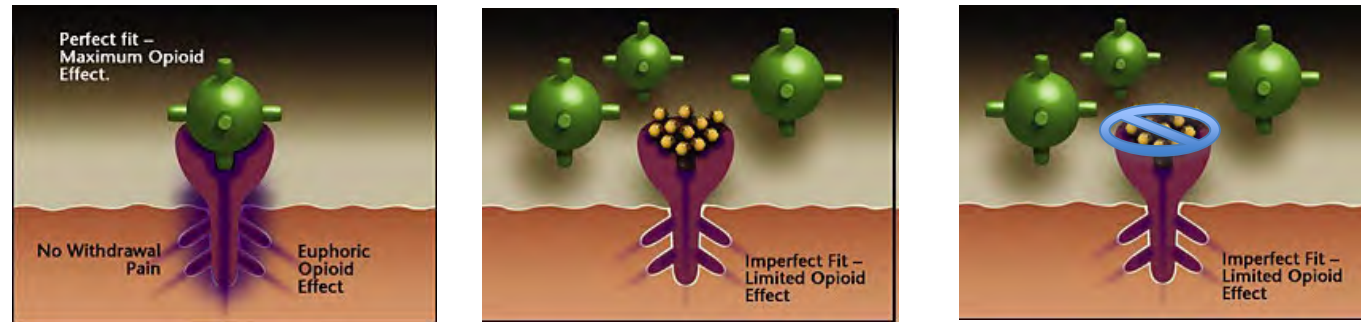
-McLellan, JAMA 10/4/02

- Acute care paradigm inappropriate (i.e., “get clean” detoxing with no further support)
- Comparable to asthma, high blood pressure, type 2 diabetes:
 - Genetic heritability
 - Role of personal responsibility, environment
 - Pathophysiology (changes to biology)
 - Response to treatment, relapse/compliance
- Effective medications available
- Primary care is the best place for chronic disease management and continuity

Targeted model for treatment

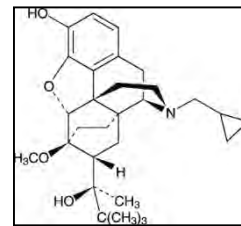
Brain Stem: Locus ceruleus noradrenergic	“physical” withdrawal	detoxification
Midbrain: Mesolimbic reward center Dopamine/NA	Protracted abstinence syndrome 3-6 months	Abstinence Meds counseling
Cortex: Associative memories	Conditioned responses, craving	Counseling: Avoiding triggers

Medication Assisted Therapy



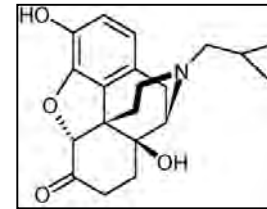
Full MU Agonist:

Methadone



Partial MU Agonist:

Buprenorphine



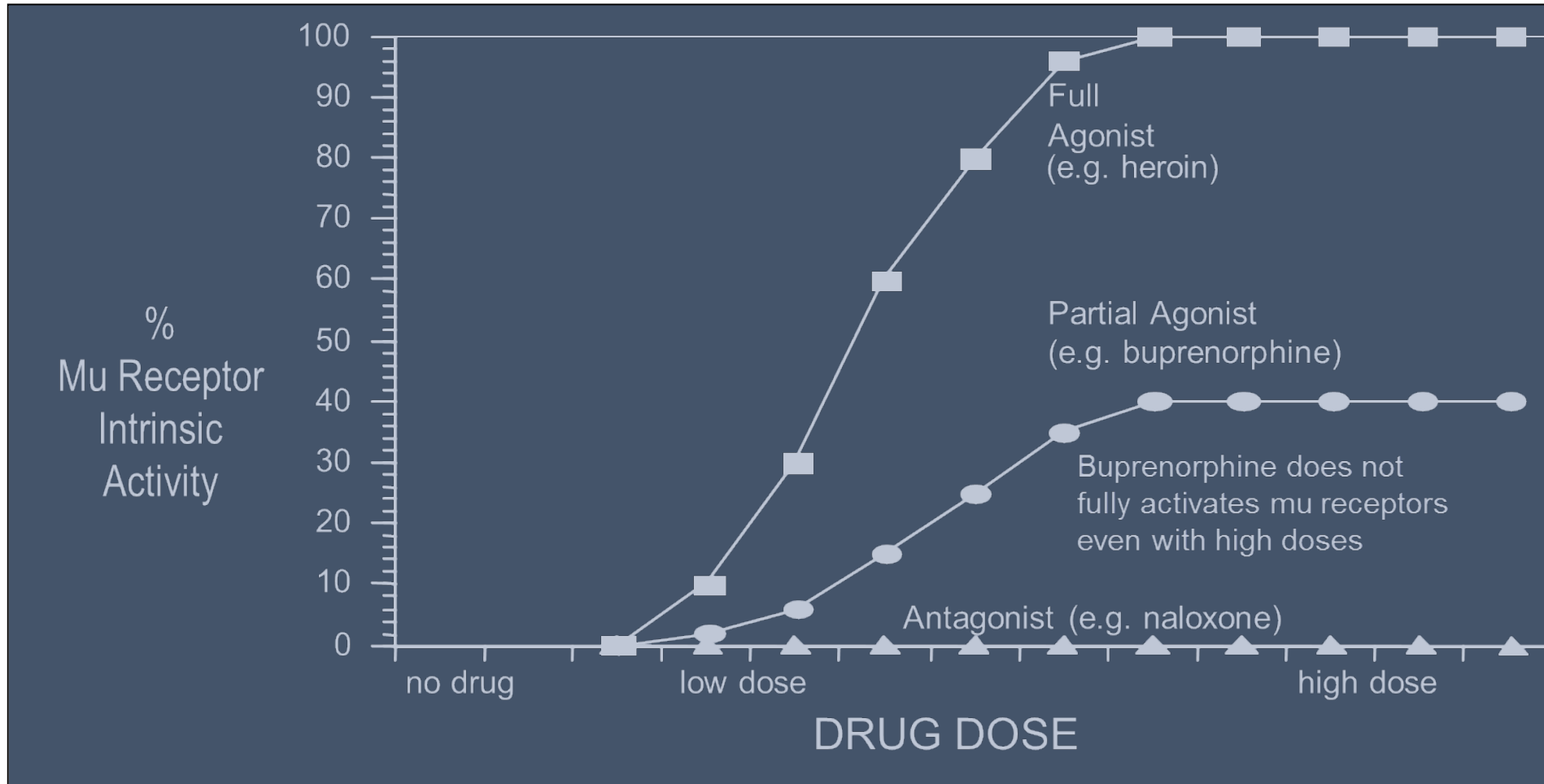
MU Antagonist:

Naltrexone

- Naltrexone has the highest receptor BINDING AFFINITY, then buprenorphine, then methadone

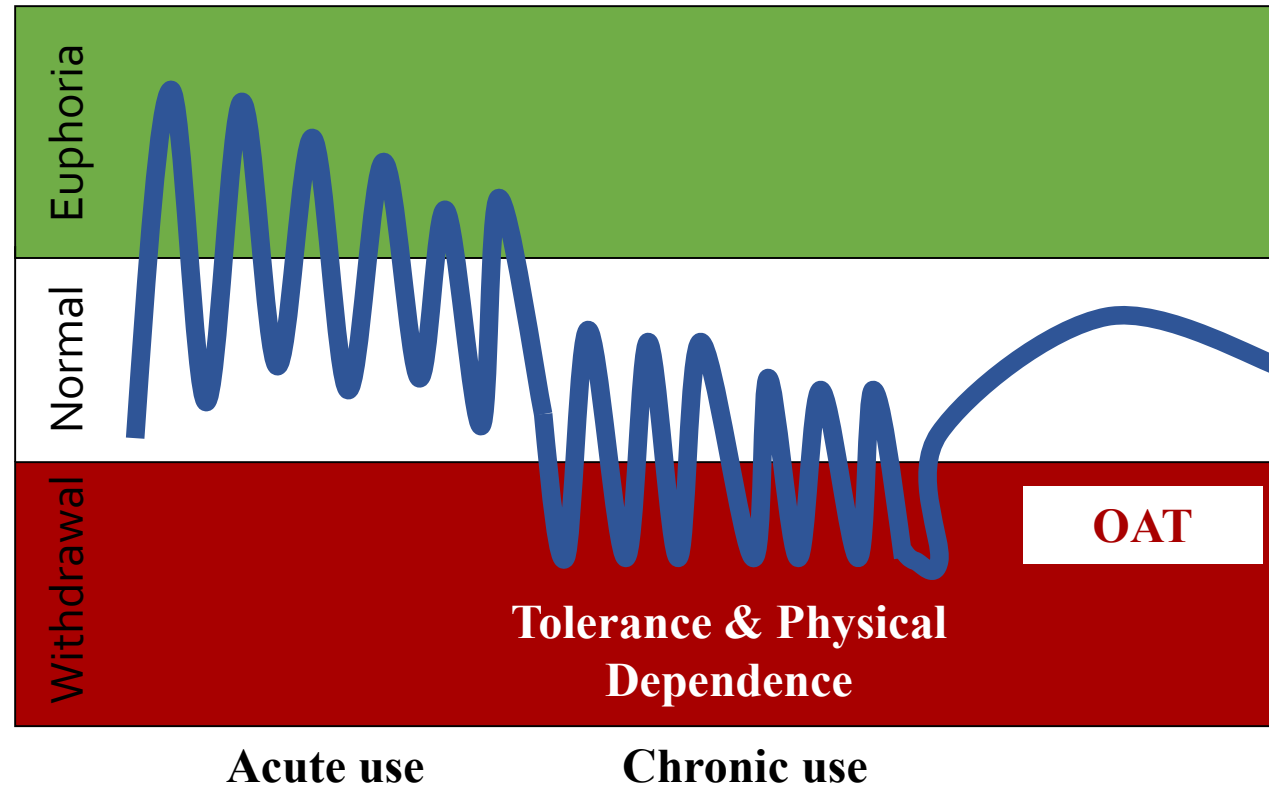


Intrinsic Activity: Full Agonist (Methadone), Partial Agonist (Buprenorphine), and Antagonist (Naloxone)



Opioid Agonist Therapy (OAT)

Buprenorphine (& Methadone)



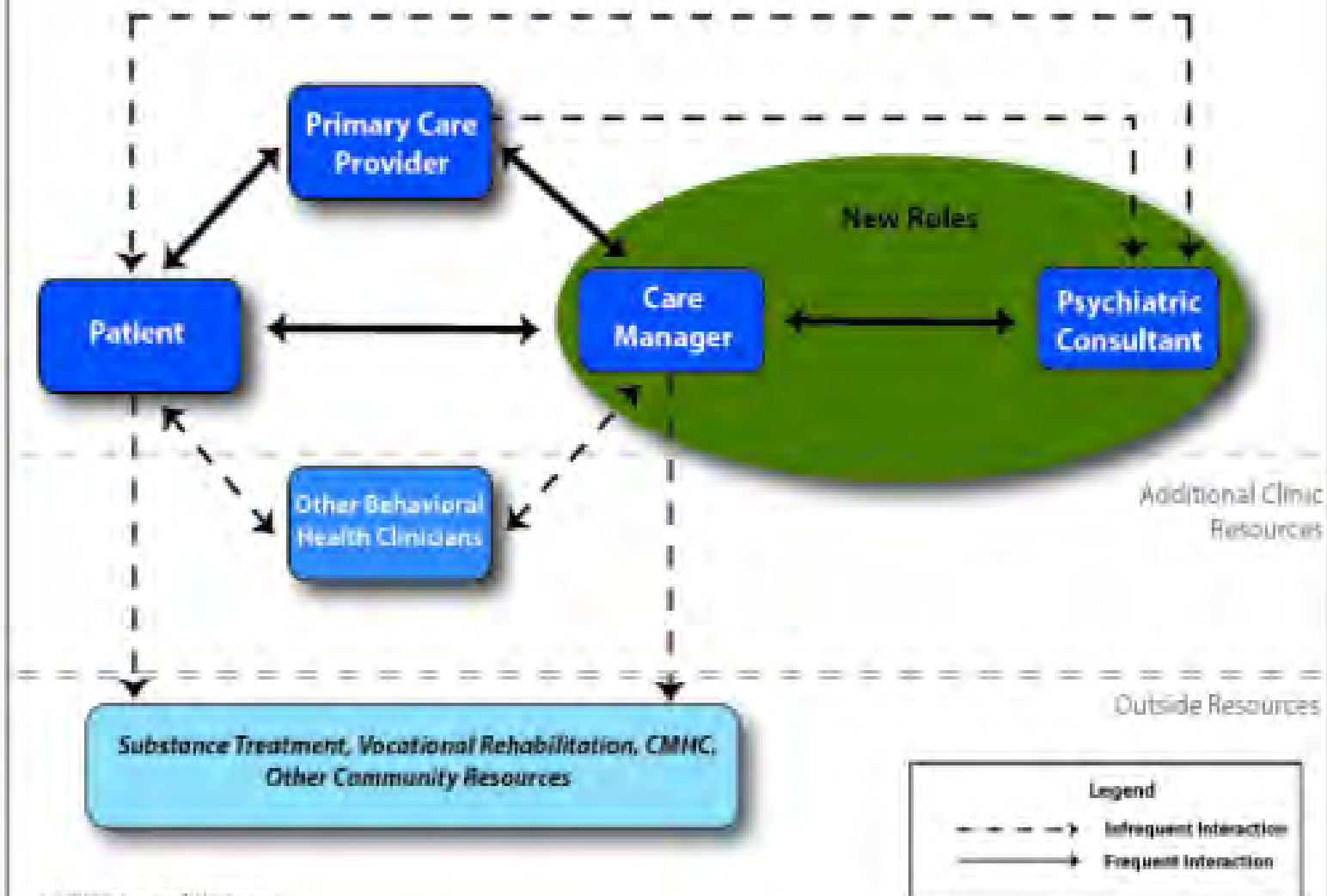


Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies

Luis Sordo,^{1,2,3} Gregorio Barrio,⁴ Maria J Bravo,^{1,2} B Iciar Indave,^{1,2} Louisa Degenhardt,^{5,6}
Lucas Wiessing,⁷ Marica Ferri,⁷ Roberto Pastor-Barriuso^{1,2} [BMJ 2017;357:j1550](#)

- OUD is associated with a 10x increase in mortality
- OAT reduces all cause mortality by 70%
- OAT reduces overdose mortality by 80%
- Mortality risk in the 4 weeks immediately after cessation of treatment is high (>30/1000 person years)

Collaborative Care Team Structure





Stigma

- *“A mark of disgrace that sets a person apart. When a person is labeled by their illness they are seen as part of a stereotyped group. Negative attitudes create prejudice which leads to negative actions and discrimination.”*
- Adds to feelings of shame, self-blame, hopelessness and distress
- Leads to reluctance to seek and accept help
- Interferes with institutional and government support for treatment and prevention



Reducing Stigma

- Understand addiction as a brain disease with genetic and environmental pre-disposing factors- ACE
- Offer compassionate support
- Be respectful and non-judgmental
- See a person for who they are
- Avoid hurtful labels and language
- Initiating drug use was (probably) a choice, but addiction is not. Blame the disease, not the person with the disease
- People with addiction are suffering and feeling vulnerable
- Avoid stereotypes

LANGUAGE IS IMPORTANT

SPEAK UP NH
NH
.ORG

SAY THIS

Person with a substance use disorder

Person in recovery

Person living with an addiction

Person arrested for a drug violation

Choose not to at this point

Medication is a treatment tool

Had a setback

Maintained recovery

Positive drug screen

NOT THAT

Addict, junkie, druggie

Ex-addict

Battling/suffering from an addiction

Drug offender

Non-compliant/bombed out

Medication is a crutch

Relapsed

Stayed clean

Dirty drug screen



Referral to Treatment: Resource Website



- Home
- For Patients & Visitors
- For Health Care Professionals**
- For Residents & Fellows
- For Employees
- Careers

Home / For Health Care Professionals / Resources / Resources for Health Care Professionals / Substance Use and Mental Health Initiative (SUMHI) / Treatment and Recovery Support and Services



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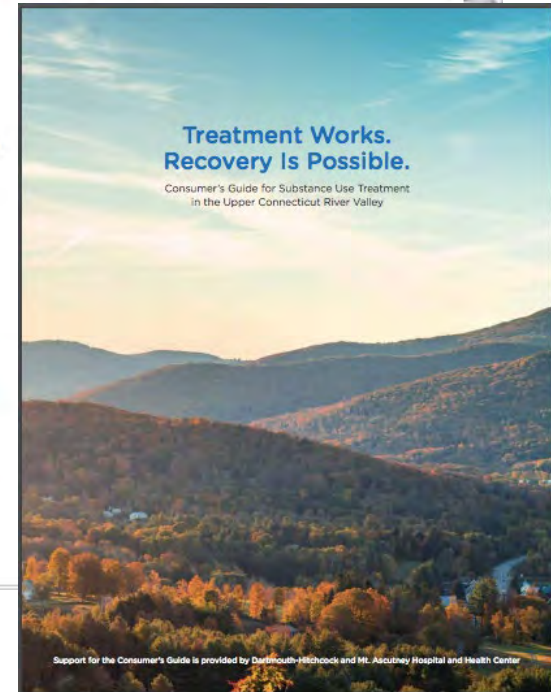
Treatment and Recovery Support and Services

Crisis Lines

- Substance related crises: 1-844-711-4357 (HELP)
- New Hampshire suicide and mental health crisis line: 1-603-448-4400
- National Suicide Prevention Lifeline: 1-800-273-8255
- Teen crisis intervention: 1-800-639-6095
- [2-1-1 New Hampshire](#)
Listing of hotlines and other resources multiple topics

Directories and Guidance in Seeking Treatment

- [2-1-1 New Hampshire](#)
- [Vermont 2-1-1](#)
- [New Hampshire Online Alcohol and Drug Treatment locator](#)
- [New Hampshire Care Paths: Substance Use Concerns](#)





A family mourns the death of their son, Brian Malmesbury, who overdosed on heroin in the basement of their home. From left to right: Brian's half sister, Brittany Neff; Brian's stepfather, Damian Neff; and Brian's mother, Patzy Neff.