OPIOIDS:
THE SUBSTANCE USE DISORDER, OVERDOSE AND TREATMENTS

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NYS OASAS CERTIFIED OPIOID OVERDOSE PREVENTION TRAINER

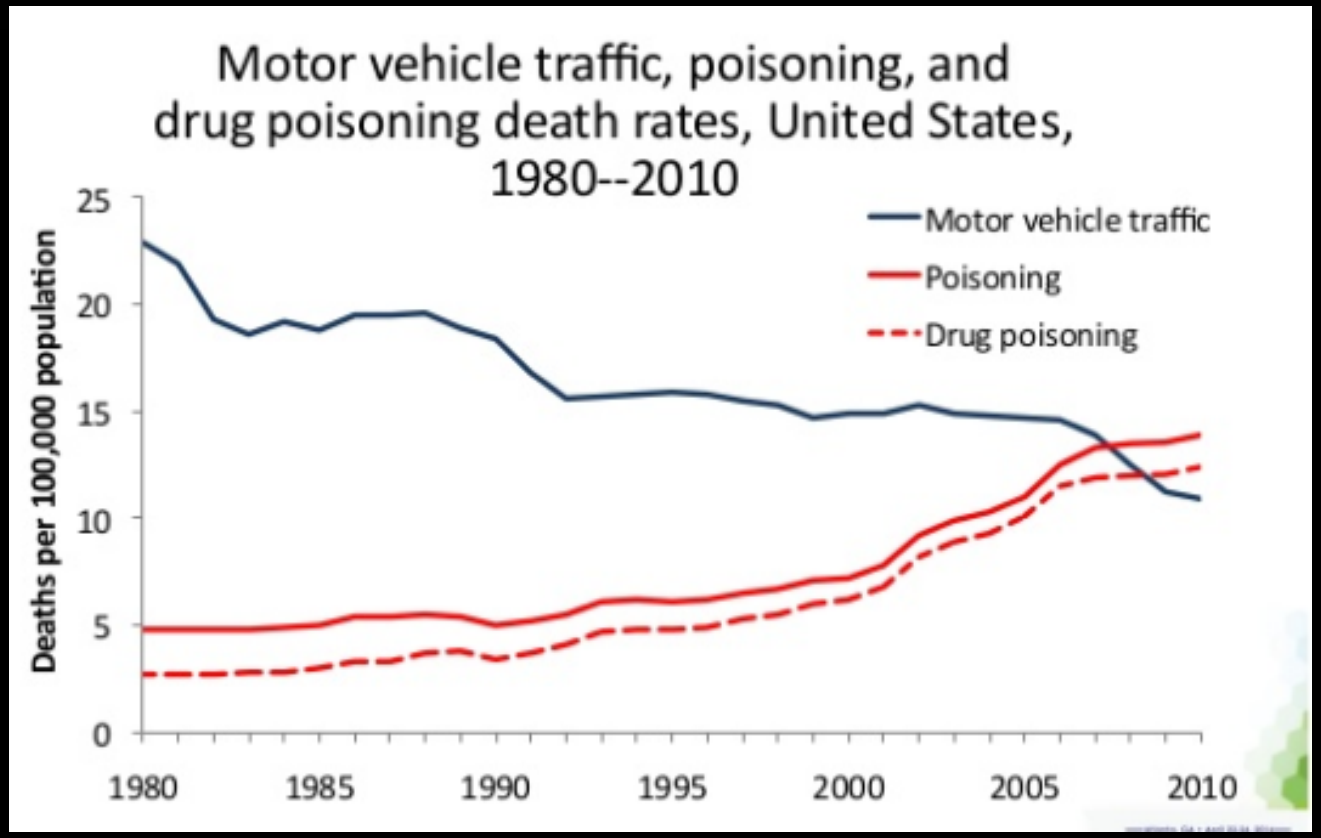
OBJECTIVES

1. Added insight on overdose trends nationwide; and r/t mental illness
2. summarize risk factors for overdose
3. Emphasize the simplicity of overdose reversal steps, and the opportunity
4. Clarify opioid use as a disorder and current treatments
5. Call to action, for health care providers, educators and lay folk
6. Further detail Co-Occurring Disorders and evidence based integrated interventions

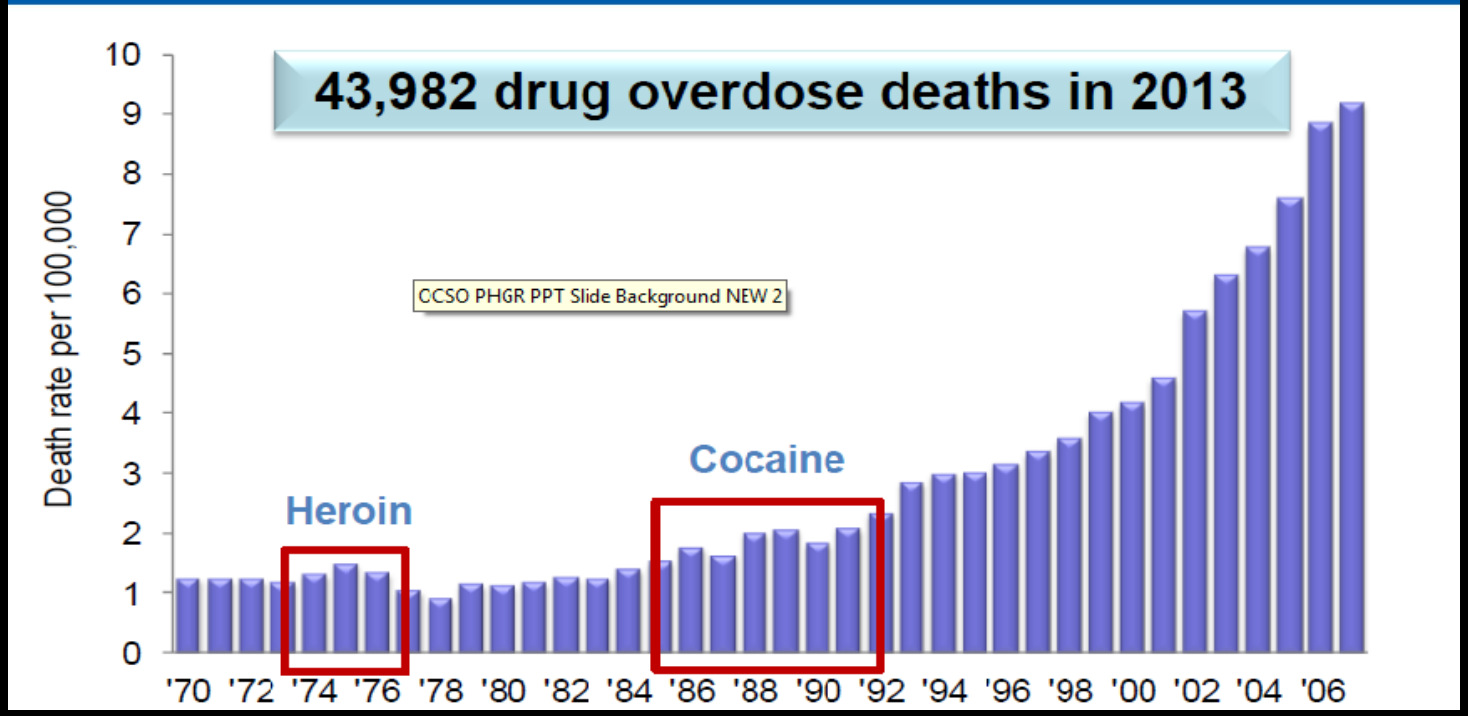
EPIDEMIOLOGY : National trends, implications

Cost : nearly 300 billion each year : healthcare spending and lost productivity, impacting workforce.

Negative impact on lives and families


Motor vehicle traffic, poisoning, and drug poisoning death rates, United States, 1980--2010
Deaths per 100,000 population
25
20
15
10
5
0
1980
1985
1990
1995
2000
2005
2010
Motor vehicle traffic
Poisoning
Drug poisoning

Unintentional Drug Overdose Deaths
United States, 1970–2007



2.1 million people in the United States had a substance use disorder related to prescription opioid pain medicines in 2016.

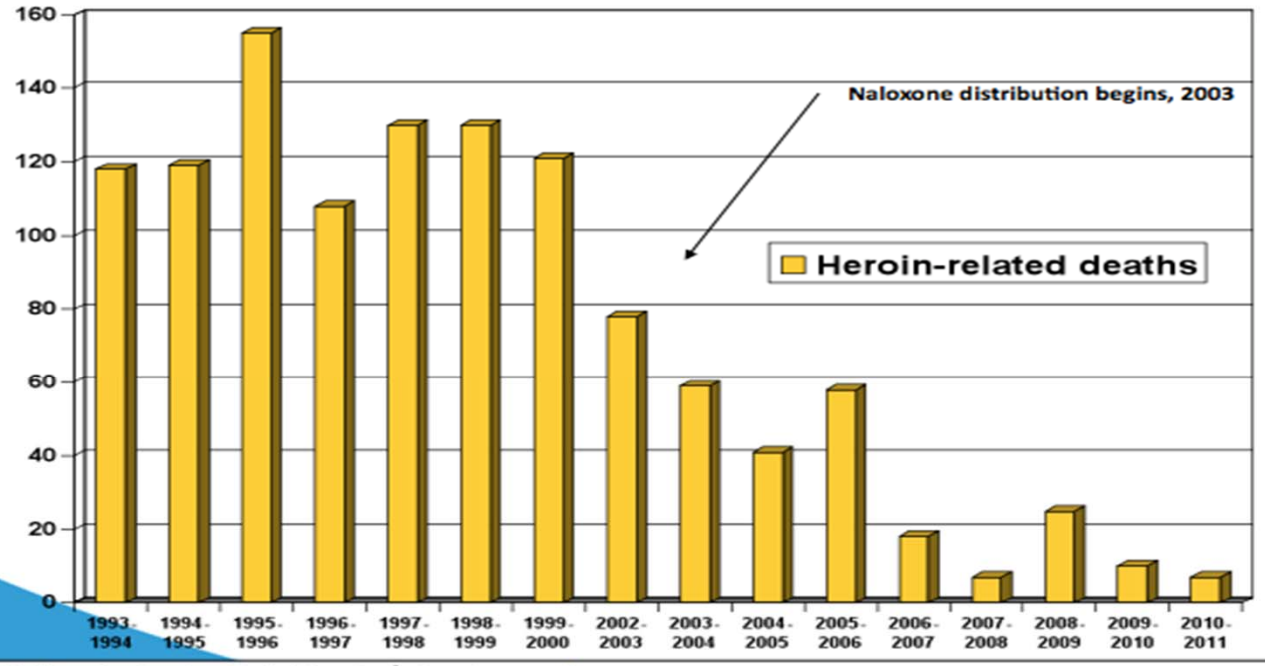
Only a fraction of people with prescription opioid use disorders receive specialty treatment (17.5 percent in 2016).

Overdose deaths linked to these medicines were five times higher in 2016 than 1999.

There is now also a rise in heroin use and heroin use disorder as some people shift from prescription opioids to their cheaper street relative; 626,000 people had a heroin use disorder in 2016, and more than 15,000 Americans died of a heroin overdose in 2016.

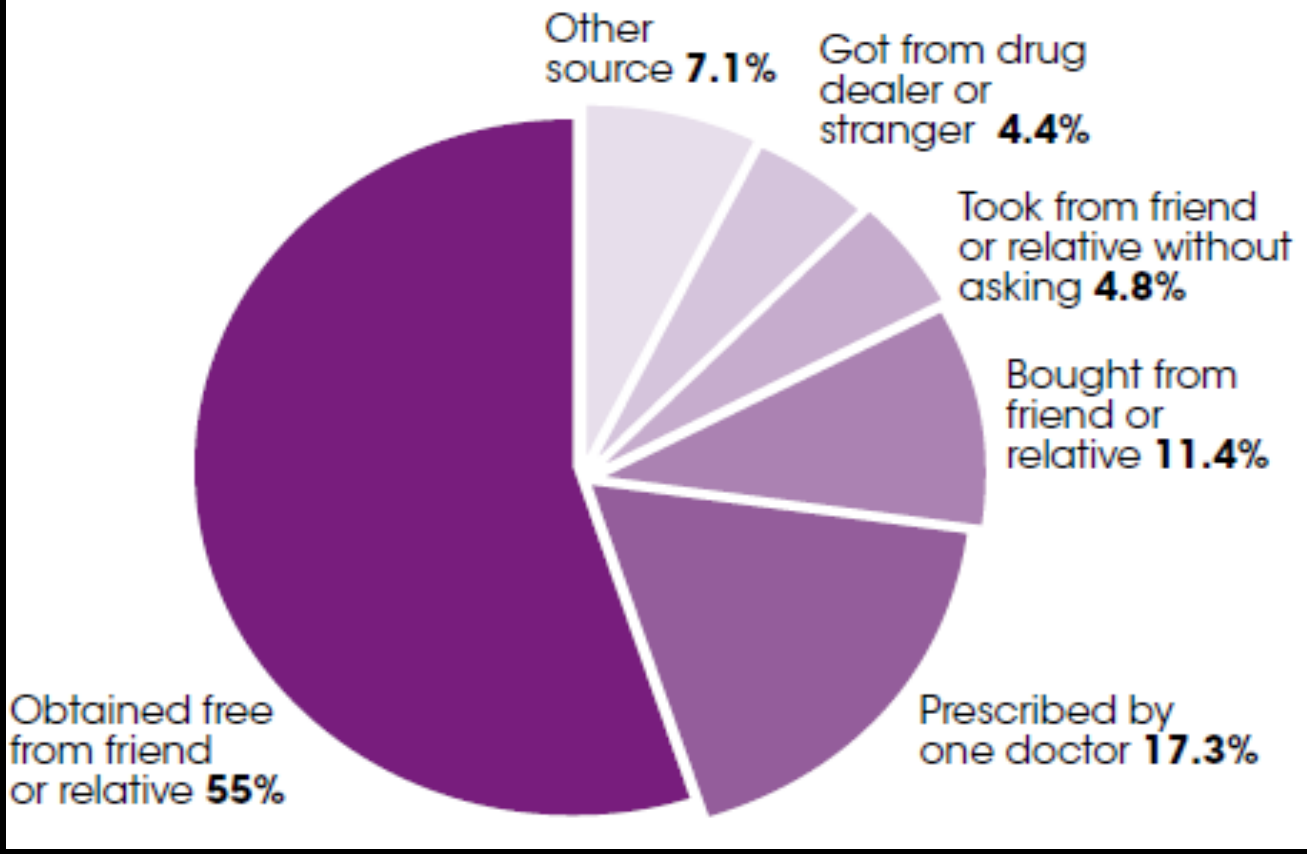
Drugabuse.gov

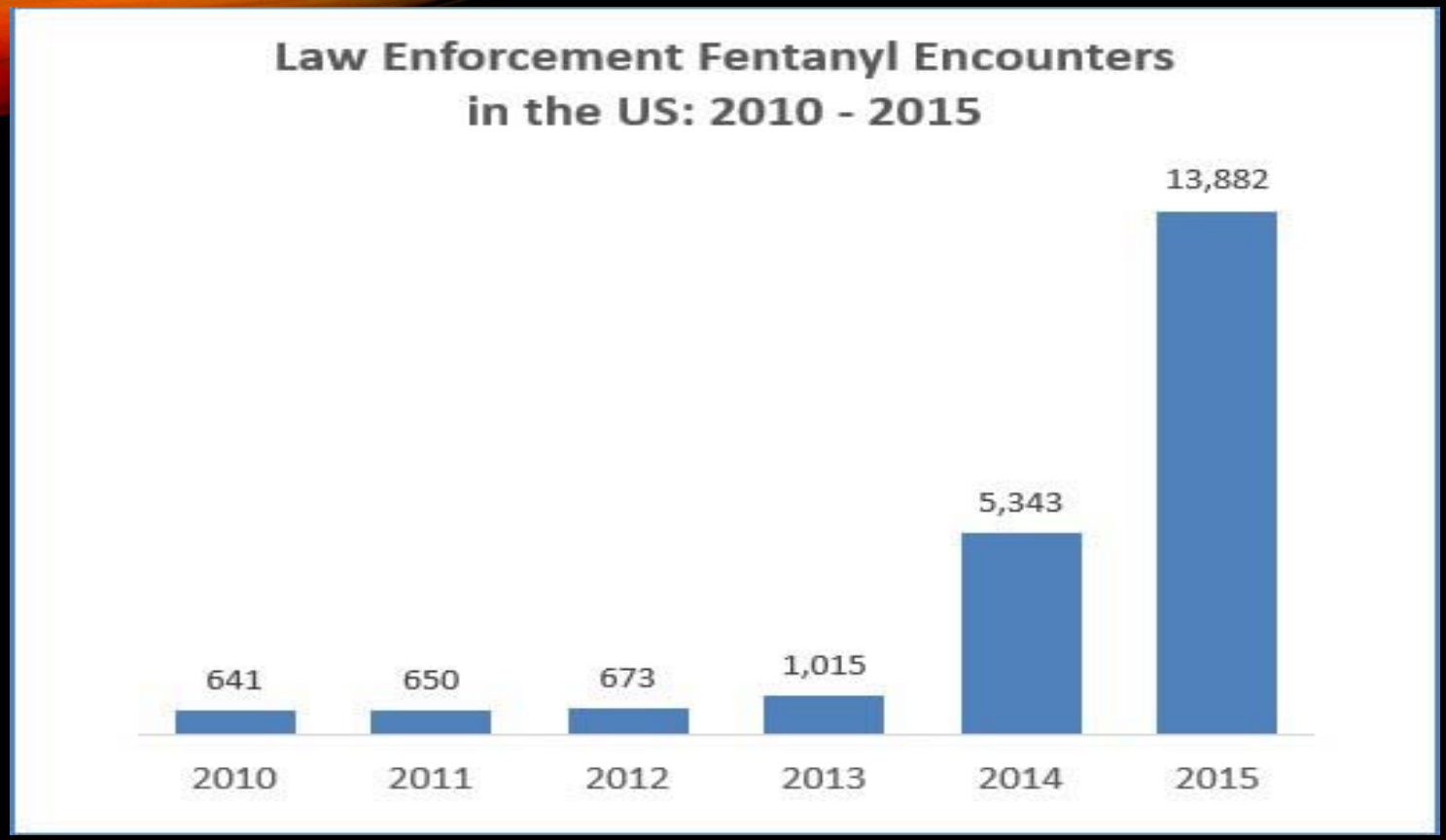
Heroin-related Deaths, San Francisco, 1993-2011



*Data compiled from San Francisco Medical Examiner's Reports, www.sfesa.org
**no data available for FY 2000-2001

People who abuse prescription painkillers get drugs from a variety of sources[7]




Law Enforcement Fentanyl Encounters in the US: 2010 - 2015
641
650
673
1,015
5,343
13,882
2010
2011
2012
2013
2014
2015

Who is most at risk of heroin addiction?[1]

- People who are addicted to prescription opioid pain relievers
- People who are addicted to cocaine
- People without insurance or enrolled in Medicaid
- Non-Hispanic whites
- Males
- People who are addicted to marijuana and alcohol
- People living in a large metropolitan area
- 18 to 25 year olds

Source CDC.gov

Epidemiology

Lifetime Prevalence of Substance Use Disorders

- General population = 16.7%
- Any mental illness = 30%
- Bipolar disorder = 61%
- Schizophrenia = 47.0%
  - 34% with alcohol abuse or dependence
- Major depressive disorder = 27.2%

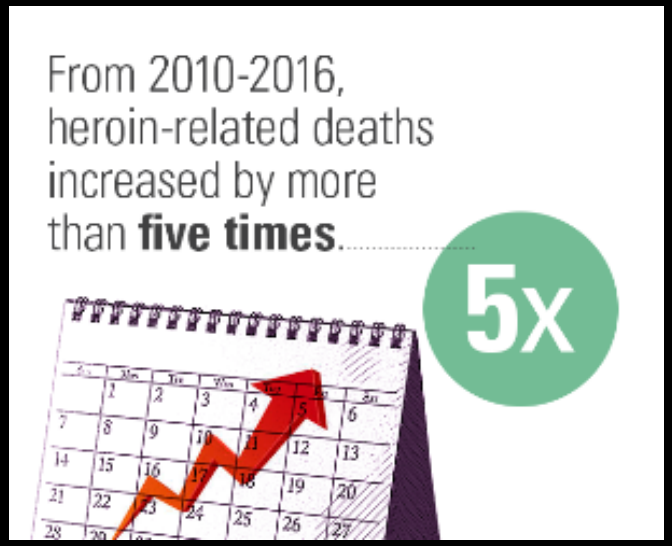
NIDA, 2010; Regier DA et al., 1990

Epidemiology

- 72% of those with substance use disorders have another mental illness
- Adult alcohol abusers: 37% other psychiatric diagnoses
- Adults with non-alcohol drug disorder: 53% other psychiatric diagnoses
- Patients with alcohol and drug dependence: 44% have history (lifetime) of MDD
- Patients with opioid dependence enrolling in methadone maintenance: 47% with other psychiatric disorders

Brooner, et al., 1997; Miller, et al., 1996; Regier et al., 1990; Swendson & Merikangas, 2000.

More than 40% of all U.S. opioid overdose deaths in 2016 involved a prescription opioid; Methadone Oxycodone (such as OxyContin®) Hydrocodone.



In 2016, there were more than 19,000 deaths relating to synthetic opioids (other than methadone) in the United States. The rate doubled. This includes drugs such as tramadol and fentanyl.

And the largest increases in overdose death rate from synthetic opioids were in **persons aged 25-44**, specifically males 25-44.

INCREASED RISK FOR OVERDOSE

•**Mixing Drugs** The **majority of all ODs** involve at least one **other drug, like alcohol, cocaine and benzodiazepines (Valium, Klonipin, Xanax, etc.).**

•**Reduced Tolerance** Someone who hasn't used for weeks or months, can't 'safely' use as much as she/he used to. Commonly it's **a person recently released** from incarceration or hospitalization, rehab (inpatient or outpatient), or one who uses sporadically

•**Changes In The Drug Supply** Such as changes in purity or, in the case of heroin, being cut with dangerous additives like Fentanyl

****Using Alone**

•**Depression/MI**

***Unstable Housing**

***Homelessness**

•**Illness**

•**History of Previous Overdose**

What Do Opioids Do ?

THEY ALTER AND/OR BLOCK THE TRANSMISSION OF NERVE SIGNALS

HOW DO THEY DO THAT??

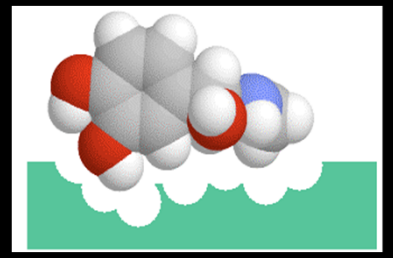
OPIOID RECEPTORS

Opioid

Opioid receptor

- ✓ Lock and key: Opioid Receptors (locks) are primarily in the central and peripheral nervous system and the GI tract.
- ✓ Opioids (keys) bind to these receptors, and decrease the perception of pain.
- ✓ In the peripheral nervous system (outside your brain), Opioids block the signals going to your brain that tell you something is hurting. In the central nervous system they can cause a sense of euphoria. "I know it still hurts, but I don't care."

Opioid



Opioid receptor

BUT THEY ALSO:

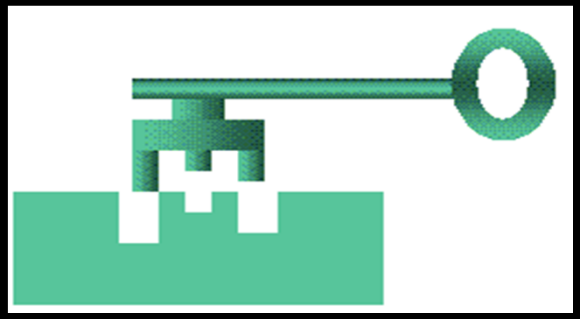
Can block the nerve pathways in your brain that keep you alert and

BREATHING!

THIS IS THE BIGGEST PROBLEM WITH AN OPIOID OVERDOSE!

NALOXONE (Narcan)
"The Antidote"

- ✓ Opioid Antagonist – reverses opioid effects
- ✓ Blocks Opioid Receptor for 30 to 90 minutes



Receptor

Advanced Warning Signs

- Missing medications
- Burnt or missing spoons/bottle caps
- Syringes
- Small bags with powder residue
- Missing shoe laces/belts

Behavioral Signs

- Change in attitude/personality
- Avoiding contact with family
- Change in friends; new hangouts
- Change in activities, hobbies or sports
- Drop in grades or work performance
- Isolation and secretive behavior
- Moodiness, irritability, nervousness, giddiness
- Stealing
- Wearing long sleeved shirts out of season

SIGNS OF OPIOID OVERDOSE

- Possible history of opioid use
- Pale and clammy face
- Limp body
- Fingernails or lips turning blue/purple
- Vomiting or gurgling noises
- Very little or no breathing
- Very slow or no heartbeat

❖Cannot be awakened from sleep or is unable to speak

What Exactly Does Naloxone Do?

✓ Reverses opiate effects of sedation and respiratory depression

✓ Causes sudden withdrawal in the opioid dependent person; very unpleasant!!

✓ No psychoactive effects – low potential for diversion; not addictive

✓ Routinely used by EMS and ED personnel

✓NO EFFECT IF OPIOID IS NOT PRESENT - NO DANGER

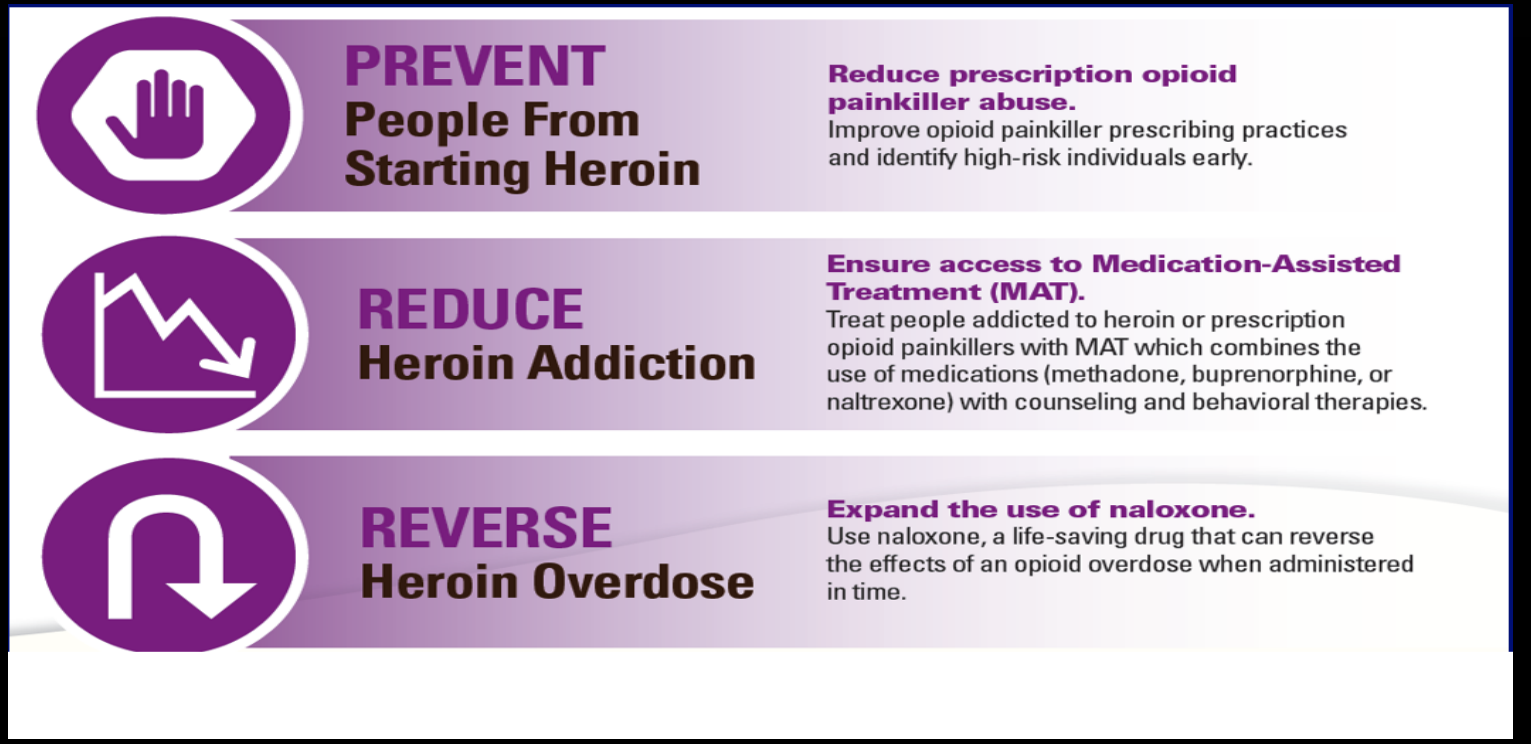
AN OPIOID OVERDOSE…

MAY BE THE TIPPING POINT…… OR THE JUNCTURE FOR CHANGE.

“THERE IS ALWAYS REASON TO HOPE”

TIPPING POINT:

“WHEN AN INCIDENT, EVENT, OR SERIES OF, LEADS TO A LARGER MORE IMPORTANT CHANGE”



Public Health Response

In response to the opioid crisis, the U.S. Department of Health and Human Services (HHS) is focusing its efforts on five major priorities:

- improving access to treatment and recovery services
- promoting use of overdose-reversing drugs
- strengthening our understanding of the epidemic through better public health surveillance
- providing support for cutting-edge research on pain and addiction
- advancing better practices for pain management

In the summer of 2017, NIH met with pharmaceutical companies and academic research centers to discuss:

- safe, effective, non-addictive strategies to manage chronic pain
- new, innovative medications and technologies to treat opioid use disorders
- improved overdose prevention and reversal interventions to save lives and support recovery

TREATMENT PHASES/ FACTORS ACROSS THE CONTINUUM OF CARE

STABILIZE, REHAB, RECOVERY

CHRONICITY AND RELAPSE

THERAPIES

CO-MORBIDITY; HIV, HEP C, LIVER FAILURE, ASTHMA, DIABETES,CVD

CO-OCCURRING DISORDERS; SUD AND SMI; HEALTHCARE COSTS 2-3X HIGHER

TREATMENTS

Inpatient Treatment

Detox- inpatient setting/hospital
Inpatient rehab, residential
MAT
Individual and group counseling
Medical
Psychiatry

Outpatient Treatment

Hospital based intensive
Outpatient Treatment
MAT
Individual and group counseling
Supportive Services
Case Management
Medical
Psychiatry
Peer Support

Recovery

Individual and group counseling
Therapy
MAT
Supportive Services
Case Management
Peer Support

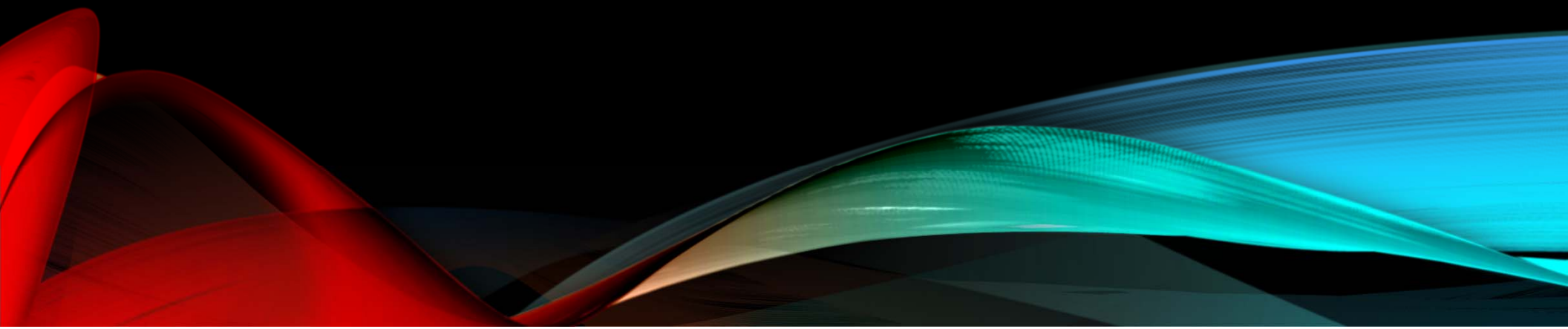
Medication Assisted Treatment

- Alcohol: disulfiram; naltrexone; acamprosate
- Opioids: methadone; buprenorphine; naltrexone
- Nicotine/smoking: nicotine replacement; varenicline; and bupropion
- Cannabis: none FDA approved
- Stimulants: none FDA approved
- Sedatives/Benzodiazepines: flumazenil; taper

SUBSTANCE USE DISORDER

Not addiction, no longer substance abuse, or dependence…

But rather mild, moderate or severe SUD



WHAT DEFINES AN SUD?

- progressively larger amounts, increased tolerance
- inability to stop, binging
- focused on obtaining, talking about it
- resultant failures; jobs, relationships, finances
- dropping out of usual activities, roles
- risky, dangerous, hazardous behaviors; obtaining, in using, or while using
- continued use despite problems; interpersonal, financial, health
- Withdrawal when not using

ACCORDING TO SAMHSA'S 2014 NATIONAL SURVEY ON DRUG USE AND HEALTH (NSDUH):

AN ESTIMATED 43.6 MILLION (18.1%) AMERICANS AGES 18 AND UP EXPERIENCED SOME FORM OF MENTAL ILLNESS.

20.2 MILLION ADULTS (8.4%) HAD A SUBSTANCE USE DISORDER.

**OF THESE, 7.9 MILLION PEOPLE HAD BOTH A MENTAL DISORDER AND SUBSTANCE USE DISORDER, ALSO KNOWN AS CO-OCCURRING MENTAL AND SUBSTANCE USE DISORDERS.

According to the National Survey of Substance Abuse Treatment Services (N-SSATS), about 45% of Americans seeking substance use disorder treatment have been diagnosed as having a co-occurring mental and substance use disorder.

serious mental illness and co-occurring substance use disorders, rates were highest among those ages 18 to 25 (35.3%)

Integrated treatment

Treatment that addresses mental and substance use conditions at the same time is associated with lower costs and better outcomes such as:

- reduced substance use, and harm reduction
- improved psychiatric symptoms,, less suicide/OD's
- improved functioning; work, school, relationships
- decreased hospitalization/improved health status
- increased housing stability, resources
- fewer arrests, resolution of current legal
- improved overall quality of life; relationships,health, work

TREATMENTS

- Engagement; Person Centered, focus on goals - not adherence
- Stage Based Treatment: Goals; mapping/planning; shared decision making
- Harm Reduction; ID's, homelessness, crime
- Therapy: Motivational Interviewing (why), Cognitive Behavioral Therapy (how) are evidence based.
- Family and individual Psychoeducation; Understanding
- MAT; effective treatment to maintain recovery
- Contingency Management; often underutilized
- Respect, Compassion, always offer **Hope**

TAKE HOME

- SUD, and Co-Occurring Disorders are prevalent and unfortunately often associated with poor outcomes and relapse. Still there is hope.
- Actively support evidence based interventions and treatments, and integrated care based on need.
- MAT/Pharmacotherapy, also evidence based, often leads to long term recovery
- Everyone can have a better understanding of SUD, Opioid use disorder, the signs and symptoms, Overdose reversal, and the options for treatment.

THANK YOU FOR BEING HERE,

AND A PART OF THE SOLUTION.