

Opioid Use Disorders & Medication Treatment

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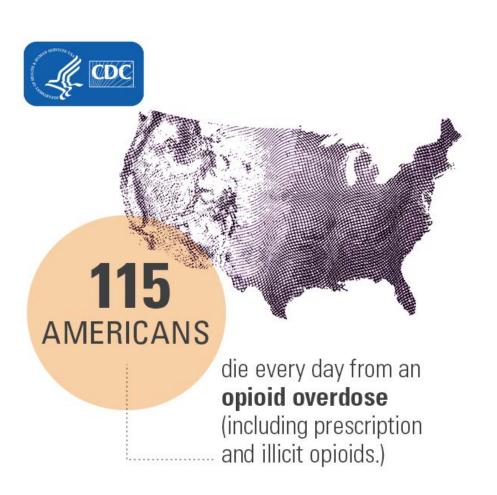
Deputy Chief Medical Officer
Washington State Health Care Authority



Discussion Objectives:

- Review recent trends and consequences of the current opioid epidemic
- Describe the 'science' of opioid use disorder to better treat patients suffering from opioid use disorder
- 3) Discuss medication treatment







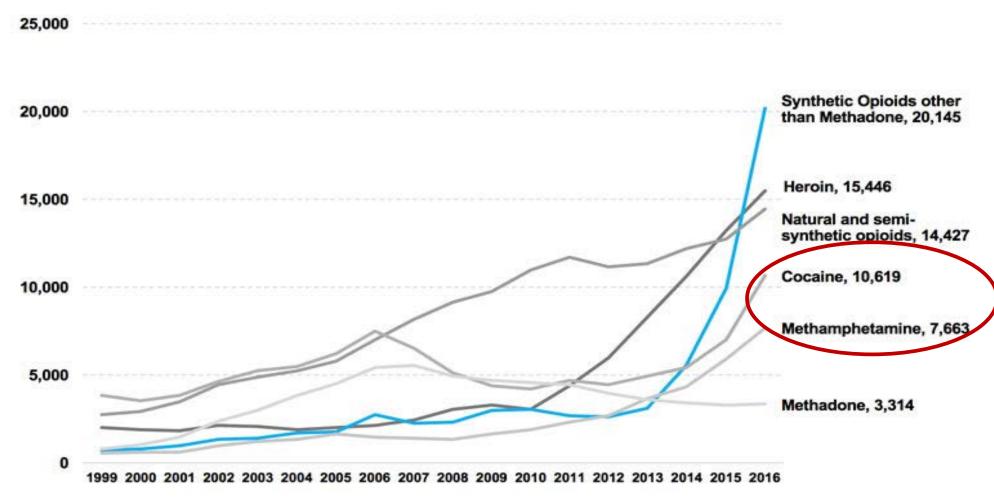
Around
46
PEOPLE



die every day from overdoses involving **prescription opioids**.



Drugs Involved in U.S. Overdose Deaths, 2000 to 2016



Drugs Involved in U.S. Overdose Deaths* - Among the more than 64,000 drug overdose deaths estimated in 2016, the sharpest increase occurred among deaths related to fentanyl and fentanyl analogs (synthetic opioids) with over 20,000 overdose deaths. Source: CDC WONDER

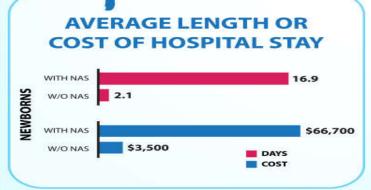


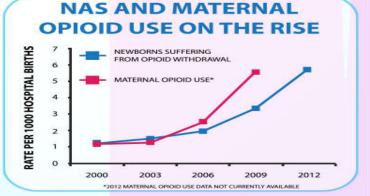
DRAMATIC INCREASES IN MATERNAL OPIOID USE AND NEONATAL ABSTINENCE SYNDROME

THE USE OF OPIOIDS DURING PREGNANCY CAN RESULT IN A DRUG WITHDRAWAL SYNDROME IN NEWBORNS CALLED **NEONATAL ABSTINENCE SYNDROME** (NAS), WHICH CAUSES **LENGTHY** AND **COSTLY** HOSPITAL STAYS. ACCORDING TO A NEW STUDY, AN ESTIMATED **21,732 BABIES** WERE BORN WITH THIS SYNDROME IN THE UNITED STATES IN 2012, A **5-FOLD INCREASE** SINCE 2000.



EVERY 25 MINUTES, A BABY IS BORN SUFFERING FROM OPIOID WITHDRAWAL







Source: Patrick et. Al., JAMA 2012, Patrick et. Al., Journal of Perinatology 2015



Impacts on Children

Percent of infants in foster care that are from families with active alcohol or drug misuse



Percent of older children in foster care that are from families with active alcohol or drug misuse



http://healthyamericans.org/assets/files/TFAH-2018-PainNationUpdateBrief-FINAL.pdf

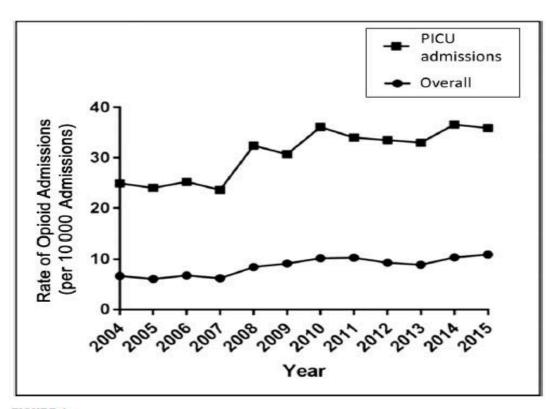


FIGURE 1

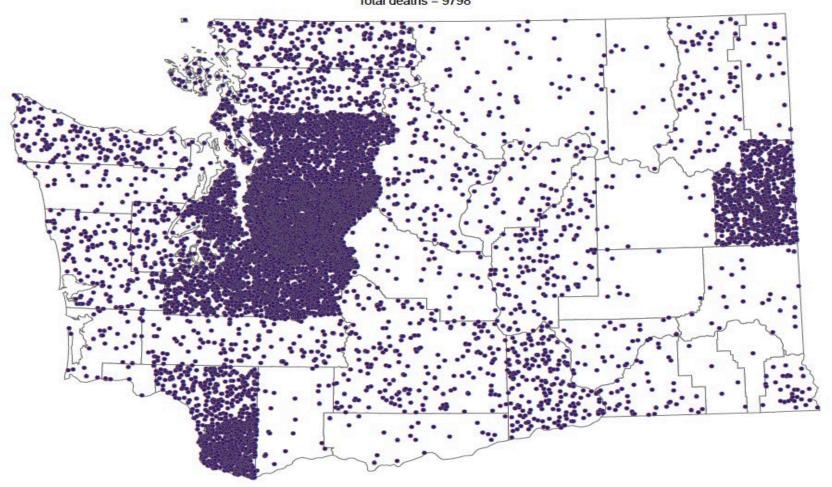
Rate of hospital admissions for opioid ingestion per $10\,000$ hospitalizations and the rate of PICU admissions for opioid ingestion per $10\,000$ PICU hospitalizations from 2004 through quarter 3 of 2015. Trends in the rate change over time were significant (P < .001).

Pediatrics. 2018;141(4):e20173335



Opioid related overdose deaths in WA 1999-2015

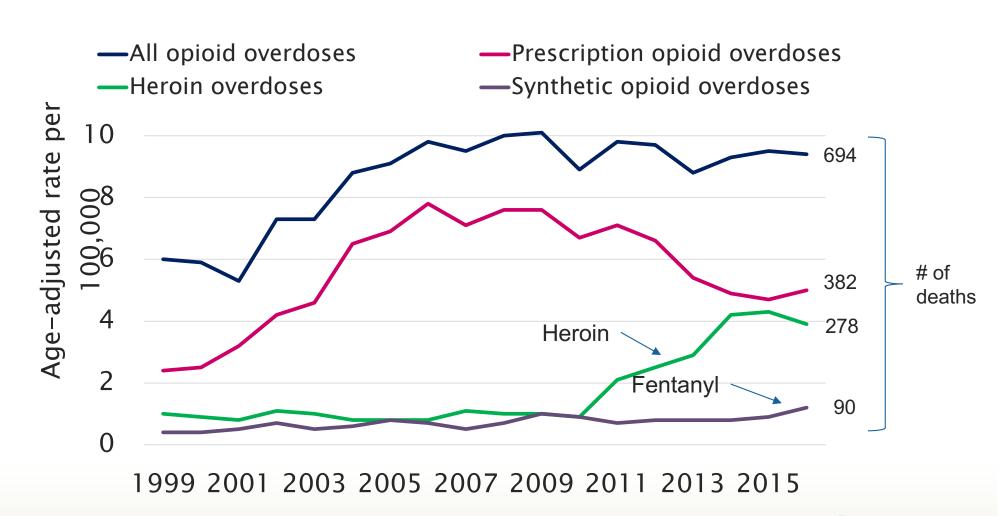
1 Dot = 1 death attributed to any opiate in the 17-year period 1999 - 2015: Total deaths = 9798



Data from Center for Health Statistics, Washington State Department of Health Dots randomly placed in county Residents who died outside Washington excluded.

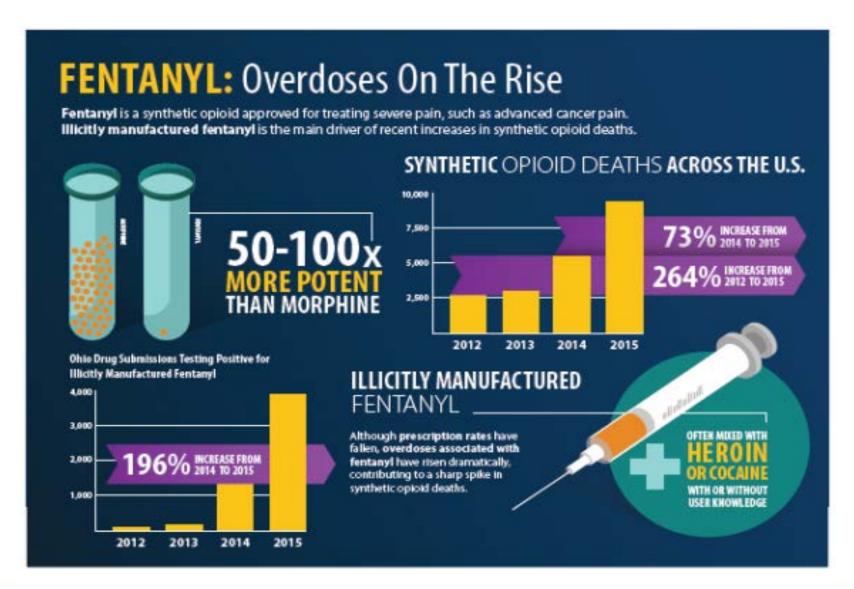


Rate of opioid-related overdose deaths by type of opioid, WA 2000–2016



Source: DOH Death Certificates (Note: prescription opioid overdoses exclude synthetic opioid overdoses)





https://www.cdc.gov/drugoverdose/opioids/fentanyl.html



Words Matter

Clean Dirty Addict Junkie

Harm reduction

Stable

Unstable

Person w/a substance use disorder

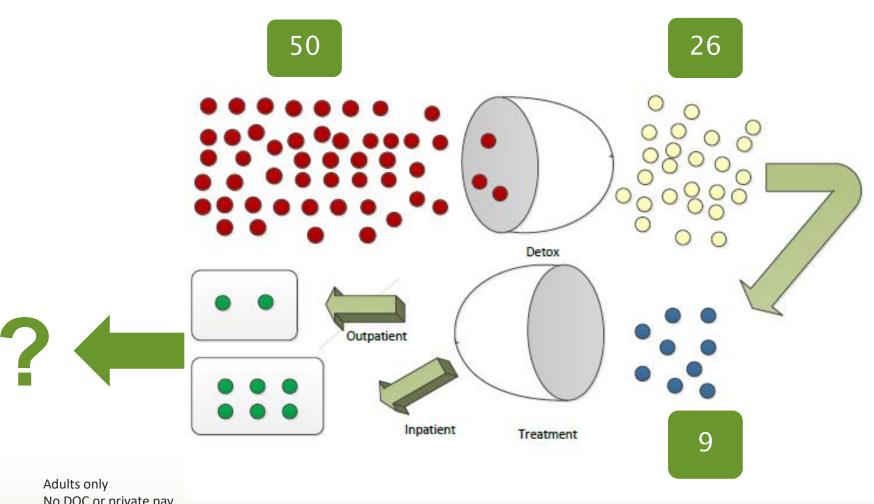
Treatment



Current Treatment Options



Persons w/Opioid Use Disorder Treated in the Public SUD System



No DOC or private pay Scopewa.net



Opioid Detoxification Outcomes

- Low rates of retention in treatment
- High rates of relapse post-treatment
 - <50% abstinent at 6 months</p>
 - <15% abstinent at 12 months</p>
 - Increased rates of overdose due to decreased tolerance
 - Walter Ling "Quote"

O'Connor PG JAMA 2005 Mattick RP, Hall WD. Lancet 1996 Stimmel et al. JAMA 1977



Substance Use Disorders are Chronic Brain Conditions



Vulnerability: "Exaggerated Response"

What Did It Feel Like The First Few Times?

- "All My Problems Disappeared"
- "Felt Like I Was Under a Warm Blanket"
- "Thought This is How Normal People Feel"
- "Forgot About All the Abuse"
- "Felt Like the World Was at Peace"
- "Totally Relaxed" "Not Shy"
- "Looking at a Beautiful Sunset"
- "I Was Energized!!"
- This is a Vulnerability (Liking Opioids)

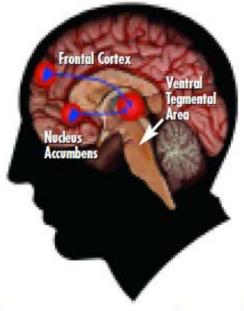




REWARD

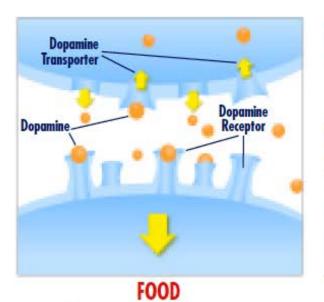
DRUGS OF ABUSE TARGET THE BRAIN'S PLEASURE CENTER

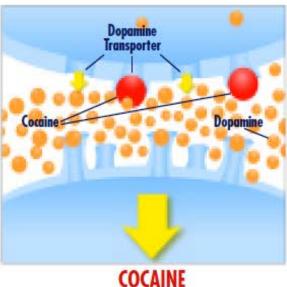
Brain reward (dopamine) pathways



These brain excuits are important for natural rewards such as food, music, and sex.

Drugs of abuse increase dopamine



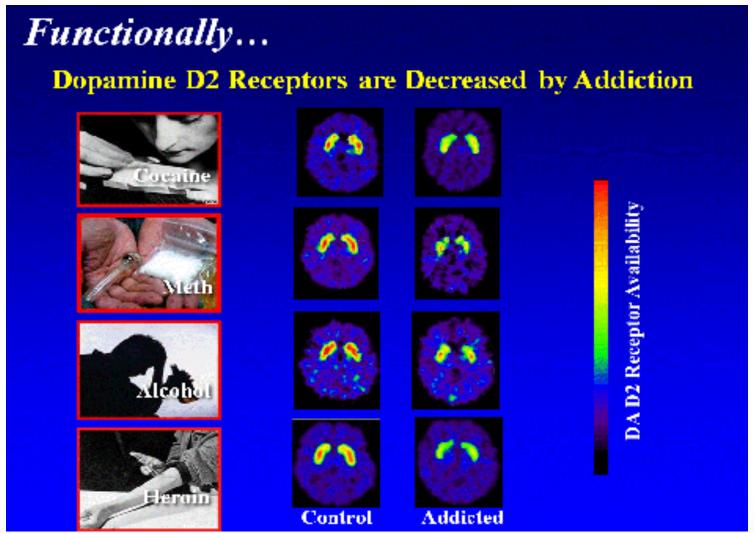


Typically, dopamine increases in response to natural rewards such as food.

When cocaine is taken, dopamine increases are exaggerated, and communication is altered.



IMPAIRMENT



Drugabuse.org

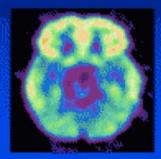


IMPAIRMENT

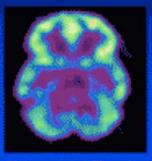
Addiction is Like Other Diseases...

- It is preventable
- > It is treatable
- It changes biology
- If untreated, it can last a lifetime

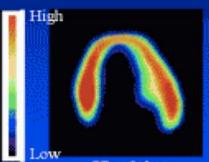
Decreased Brain Metabolism in Drug Abuser Decreased Heart Metabolism in Heart Disease Patient



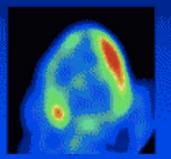
Healthy Brain



Diseased Brain/ Cocaine Abuser



Healthy Heart



Diseased Heart

Research supported by NIDA addresses all of these components of addiction.

NIDA



Craving

The Memory of Drugs Amygdala Amygdala not lit up activated Front of Brain **Back of Brain Nature Video Cocaine Video** Photo courtesy of Anna Rose Childress, Ph.D.



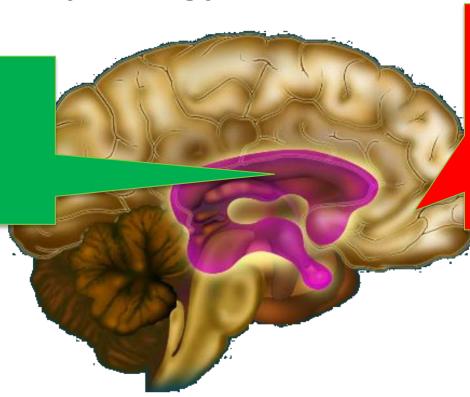
Brain Physiology of SUD treatment

Limbic Region

- Basic Drives
- Experience of Reward & Euphoria

Interventions

- AgonistMedications
- AntagonistMedications



Cortex

- Decision making
- Thinking
- Reasoning
- Learning

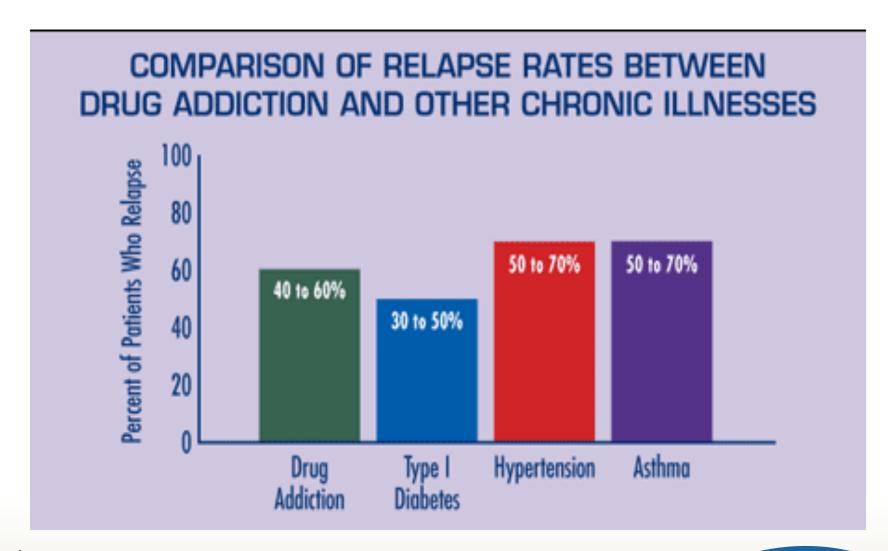
Interventions

- PsychosocialTherapies
- 12 StepPrograms
- Monitoring
- Contingencies

Source: NIDA Drugs, Brains, and Behavior – The Science of Addiction Website. http://www.nida.nih.gov/scienceofaddiction/brain.html; Fowler JS et al. (2007). Sci Pract Prospect. 3;4:4-16

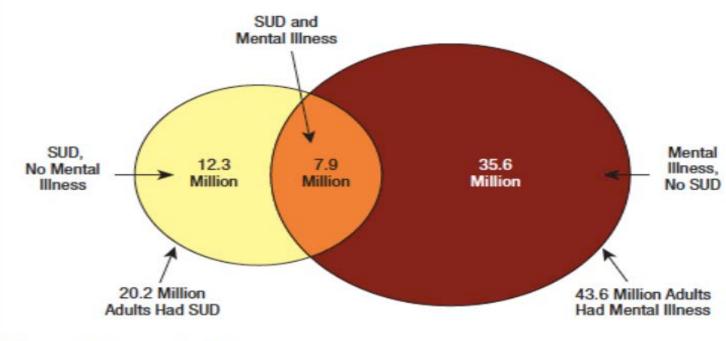


RELAPSE RATES ARE FAMILIAR









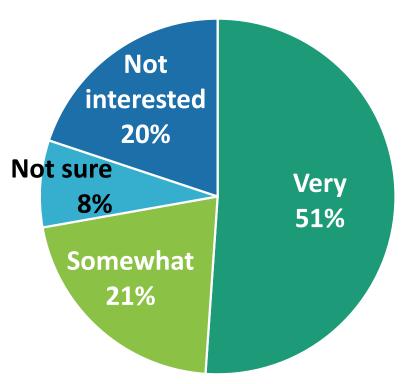
SUD = substance use disorder.

Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health



Many people in WA are not getting treatment

How interested are you in reducing or stopping your opioid use?



What types of help would you want if they were easy to get?

- 56% medication treatment
- 39% detox
- 34% individual counseling for addiction





The State's Response



Washington State Interagency Working Plan

Priority Goals

Goal 1:
Prevent
Opioid
Misuse and
Abuse

Abuse

Improve Prescribing Practices

Goal 2: Treat Opioid Dependence



Expand Access to Treatment

Goal 3:
Prevent
Deaths from
Overdose



Distribute naloxone to people who use opioids

Goal 4: Use Data to Monitor and Evaluate



Optimize and expand data sources

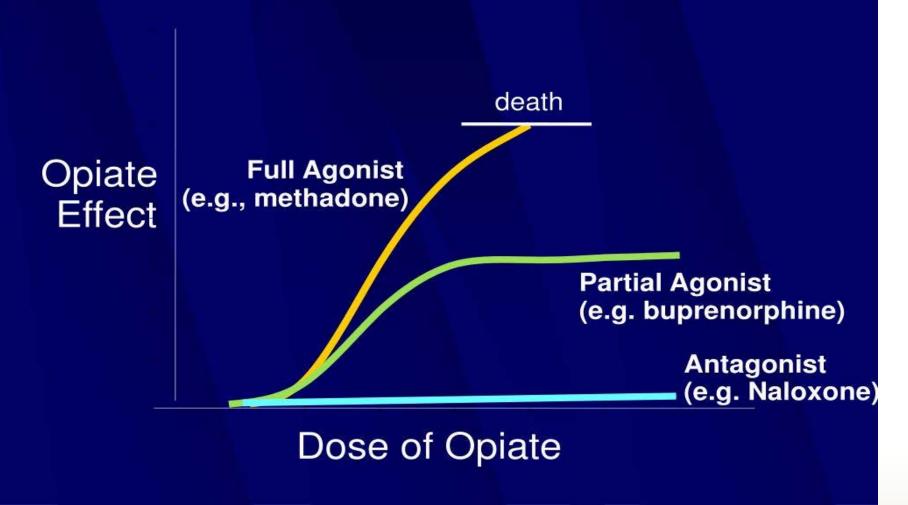
Priority Actions



Medication Treatment



Partial vs. Full Opioid Agonist





Medications for Opioid Use Disorders Methadone Buprenorphine





Naltrexone/Vivitrol®





Buprenorphine Products

- Partial agonist, partial activator
- Most commonly used in combination w/naloxone
- Very strong receptor affinity
- Must not have opioids in system before 1st dose
- Reduces craving & withdrawal; improves treatment retention
- Overdose risk is minimal
- Any sedative hypnotic, alcohol, will add to the risk of respiratory depression, overdose and death
- If injured or in pain patients may need higher doses of opioids to treat it



Abuse Potential of Buprenorphine

- Euphoria in non-opioid dependent individuals
- Abuse potential less than full agonists
- Abuse among opioid-dependent individuals is relatively low
- Combination product theoretically less likely to be abused by IV route
- Most illicit use is to prevent or treat withdrawal and cravings

Yokel MA et al. *Curr Drug Abuse Rev. 2011* Lofwall MR, Walsh SL. *J Addict Med. 2014*



Buprenorphine Efficacy Summary

- Studies (RCT) show buprenorphine more effective than placebo and equally effective to moderate doses (80 mg) of methadone on primary outcomes of:
 - Abstinence from illicit opioid use
 - Retention in treatment
 - Decreased opioid craving

Johnson et al. NEJM 2000

Fudala PJ et al. NEJM 2003

Kakko J et al. Lancet 2003



Pregnancy: Benefits of Opioid Agonist Therapy

Maternal Benefits

- 70% reduction in overdose related deaths
- Decrease in risk of HIV, HBV, HCV
- Increased engagement in prenatal care and recovery treatment

Fetal Benefits

- 70% reduction in overdose related deaths
- Decrease in risk of HIV, HBV, HCV
- Increased engagement in prenatal care and recovery treatment



Impact of Methadone Maintenance Treatment

- Methadone is a full agonist, full activation
- Can only be dispensed in an Opioid Treatment Program, OTP
- Has many drug-drug interactions
- Reduction in death rates (Grondblah, '90)
- Reduction in IDU (Ball & Ross, '91)
- Reduction in crime days (Ball & Ross, '91)
- Reduction in rate of HIV seroconversion (Bourne '88; Novick '90; Metzger '93)
- Reduction in relapse to IDU (Ball & Ross)
- Improved employment, health & social function



Methadone Maintenance Treatment Limitations

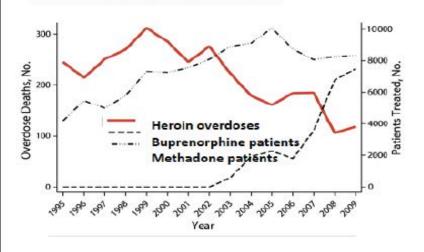
- Limited Access
- Inconvenient and highly punitive
- Mixes stable and unstable patients
- Lack of privacy
- No ability to "graduate" from program
- Stigma



Agonist Medications Decrease Heroin OD

Agonist Treatment Reduced Heroin OD Deaths

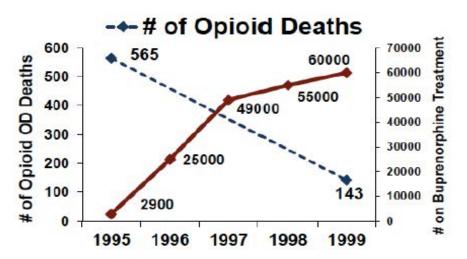
Baltimore, Maryland, 1995-2009



Schwartz RP et al., Am J Public Health 2013.

Buprenorphine Reduced Heroin OD

France 1995-1999 (75% reduction)



Ling et al. J Subst Abuse Tx 2002;23:87-92. Auriacombe et al. JAMA 2001;285:45.



Vivitrol®(naltrexone)

- An opioid antagonist, blocker
- Given by injection every 4 weeks
- When using for opioid use disorder, wait 7-10 days (up to 14 for methadone)
- Most common side effects
 - Nasuea, vomiting, headache, dizziness, fatigue, anxiety, somnolence
- Reduces craving
- Injection effects can be overcome with high dose opioids
- Tolerance resolves quickly and return to prior doses of opioids can lead to overdose



Potential Naltrexone Candidates

- Occupational Obstacles: Healthcare providers
- Not interested/Failed agonists
- High Motivation for AA Model of Recovery
- Currently Abstinent: High risk of relapse
- Maybe younger, shorten duration of OUD
- Don't want to be physically dependent
- Tired of regulations, stigma and pressure from others



Opioid Use Disorder (OUD): Behavioral Treatment Components

- Psychosocial Services: often helpful for treatment of OUD
 - Can be delivered by physician and/or by referral when needed
- Refer patients as clinically determined to:
 - Individual and group therapy
 - Family therapy
 - 12 Step
 - Higher psychiatric severity patients more responsive to increased services



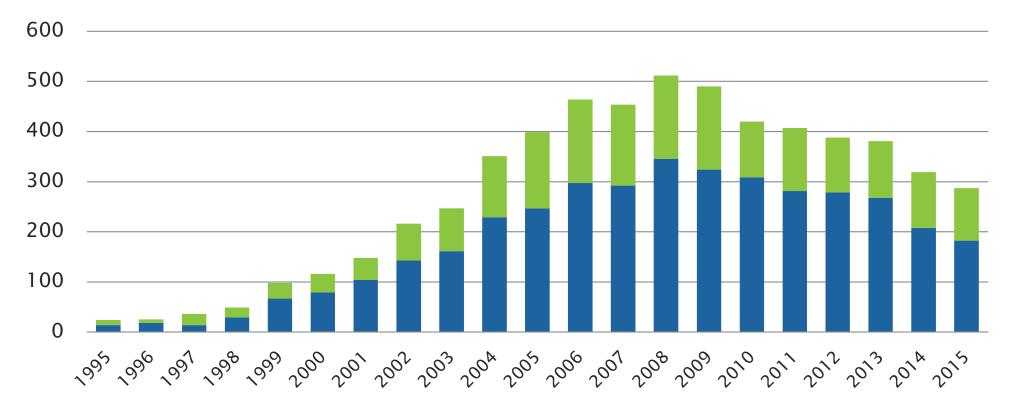
MAT Prevents Opioid Related Deaths

- Methadone and buprenorphine reduce a person's risk of overdose by half
- Risk of treatment being in psychologic treatment alone doubled the risk of death
- 6x higher risk 1st 28 days after DC
- 3.5x higher 1st 28 days after MAT stopped
- THE BOTTOM LINE: MAT SAVES LIVES



Washington Unintentional Prescription Opioid Deaths 1995 - 2015

44% sustained decline

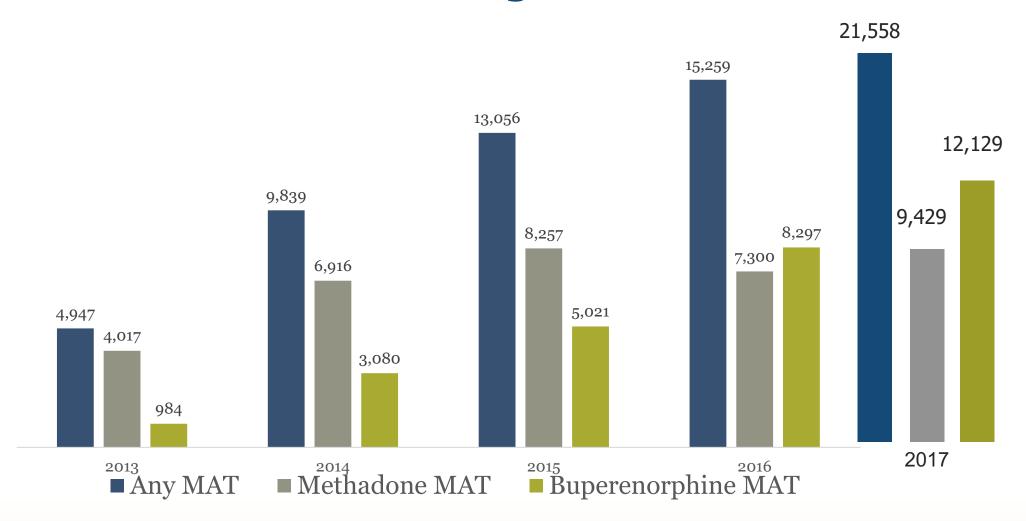


- Possible Prescription Opioid (rx opioid+alcohol or illicit drug)
- Definite Prescription Opioid (rx opioid+/-other prescriptions)





Growth in medication prescribing for opioid use disorder among Medicaid clients



SOURCE: Provider One client Eligibility tables (HCA) & Client Outcomes Database (DSHS RDA). Note: Excludes dual eligibles and persons with third-party liability; includes all Medicaid eligibles in the year with Medication assisted treatment (MAT)





Opioid-related overdose deaths and hospitalizations, WA State, 2016 vs. 2017

	Jan – Jun 2016	Jan – Jun 2017
Deaths*		
Any opioid	394	(328)
Rx opioid (excludes fentanyl, tramadol)	232	160
Other Synthetic (e.g., fentanyl, tramadol)	46	53
Heroin	158	146
Hospitalizations		
Any opioid	733	727
Non-heroin opioid	573	575
Heroin	162	154

^{*}Deaths from apiaid overdoses may include substances from multiple opioid categories.

Source: DOH Death Certificates and CHARS Note: Death data available as of January 3, 2018.



Prevent Overdose



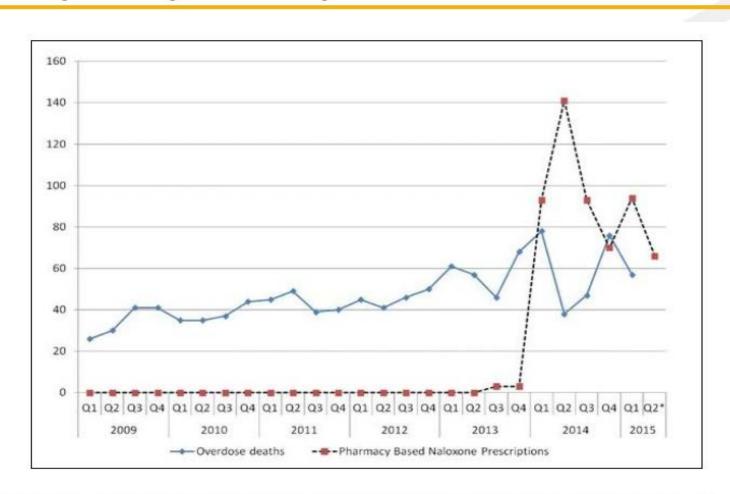
Washington's Good Samaritan Law

- RCW 69.41.095: Opioid overdose medication
 - Amended in 2015
 - Licensed health care providers
 - Pharmacists
 - First responders
 - Family members
 - Any person in a position to assist persons at risk of an opioid overdose

http://app.leg.wa.gov/RCW/default.aspx?cite=69.41.095



Overdose deaths and pharmacy-based naloxone prescriptions dispensed in Rhode Island



Source: Green TC et al. Orienting patients to greater opioid safety: models of community pharmacy-based naloxone. Harm Reduction J. 2015



Naloxone Formulations

Injectable Intranasal





EVZIO® Autoinjector



Narcan ® Nasal Spray





Recovery



Peer Strengths

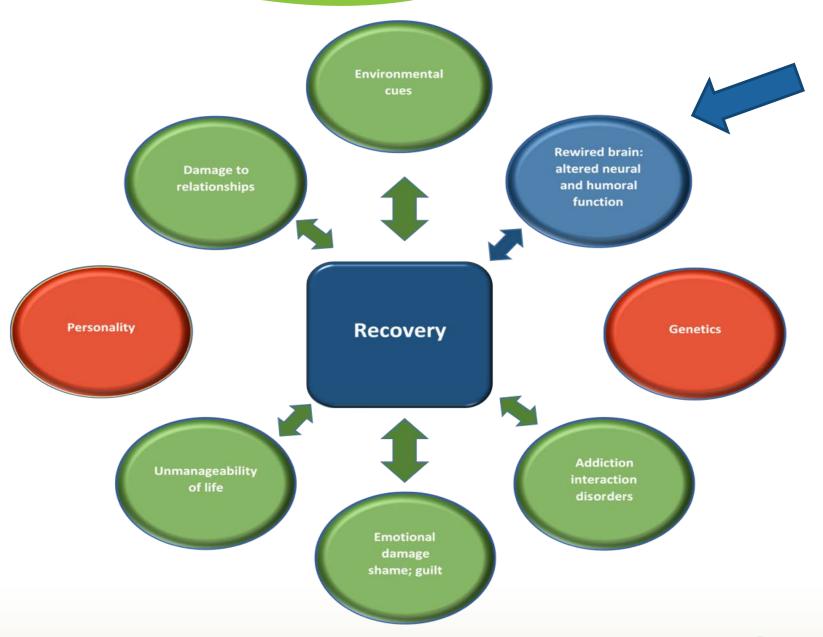
- Empathic
- Hopeful
- Integrated
- Strength based
- Lived experience
- Health, home, purpose, community



Peer Recovery Supports

- Reduce the risk of relapse
- Provide hope
- Provide experiential knowledge
- People don't live in clinics or treatment centers







Questions?



State Targeted Response to the Opioid Crisis Grants Short Title: Opioid STR

Stephanie S. Endler, MPA
Project Director, Opioid State Targeted Response



SAMHSA STR Grant

- Part of the 21st Century Cures Act, signed December 13, 2016, by President Obama
 - Promotes and funds the acceleration of research into preventing and curing serious illnesses; accelerates drug and medical device development.
 - Addresses the opioid abuse crisis; and tries to improve mental health service delivery.
 - STR State award allocations based on need: \$485 million in grants to help states and territories combat opioid addiction
- May 1, 2018, year two of the STR Grant began

- Prescriber/Provider Education (\$80,000)
 - Goal #1 Prevent opioid misuse and abuse; Strategy 1: Promote use of best practices among health care providers for prescribing opioids for acute and chronic pain.

• <u>Description</u>:

- Host two (one east side and one west side of the State) symposium events for Washington State dental prescribers and oral health care providers who commonly treat youth and adults with injuries and acute pain.
- The events will focus on opioid prescribing practices and guidelines.
 Washington State Labor and Industries (L&I) provided planning support for symposium content and speakers.
- DBHR Lead Manager: STR Prevention Manager Alicia Hughes

- **UW TelePain** (\$40,619)
 - Goal #1 Prevent opioid misuse and abuse; Strategy 1: Promote use of best practices among health care providers for prescribing opioids for acute and chronic pain.
- <u>Description</u>: Provide partial funding to the University of Washington (UW) for a weekly TelePain program that provides access to a multidisciplinary panel of experts that provide didactic teaching and case consultation to primary care providers to reduce overdose related deaths by improving the knowledge and prescribing practices of primary care providers.
- DBHR Lead Manager: STR Prevention Manager Alicia Hughes



- Public Education Campaign (\$868,149)
 - Goal #1 Prevent opioid misuse and abuse; Strategy 2: Raise awareness and knowledge of the possible adverse effects of opioid use, including overdose, among opioid users.
- <u>Description</u>: Work with the DSHS Communications Office and additional media vendors as needed to design, test and disseminate various public education (cable, radio, newsprint, and social media) messages that promote public education with tribes to meet community needs.
- DBHR Lead Manager(s): Billy Reamer & Tina Anderson

Websites:

https://www.facebook.com/WAopioidawareness/

http://getthefactsrx.com/

www.watribalopioidsolutions.com

- Safe Storage Curricula and Training (\$20,000)
 - Goal #1 Prevent opioid misuse and abuse; Strategy 2: Raise awareness and knowledge of the possible adverse effects of opioid use, including overdose, among opioid users.
- <u>Description</u>: Innovative pilot project to integrate prescription drug misuse and abuse prevention education into existing state services that parents and caregivers receive. This project will engage state agencies to submit project proposals up to \$5,000 to establish internal capacity to provide prescription misuse/abuse prevention education and messaging.
- <u>DBHR Lead Manager</u>: STR Prevention Manager Alicia Hughes

- Prevention Workforce Enhancements (\$60,000)
 - Goal #1 Prevent opioid misuse and abuse; Strategy 2: Raise awareness and knowledge of the possible adverse effects of opioid use, including overdose, among opioid users.

<u>Description</u>: Enhance funding support to Annual Washington State Prevention Summit and Spring Youth Forum. This support will increase the availability of educational opportunities for youth and prevention professionals (and related fields) by providing presentations and workshops geared toward opioid misuse and abuse prevention.

DBHR Lead Manager: Angie Funaiole

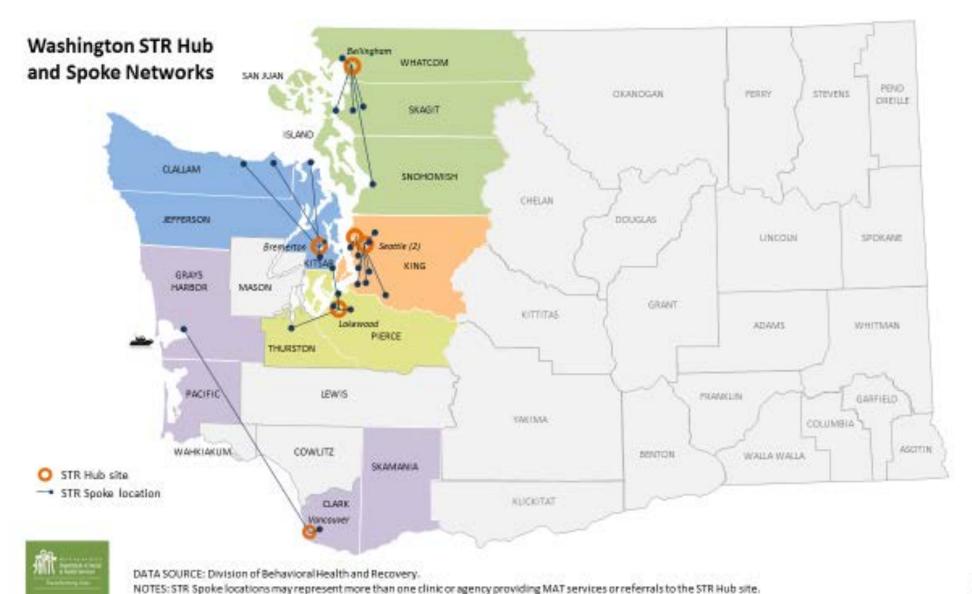
- Community Prevention and Wellness Initiative (CPWI) Expansion (\$752,000)
 - Goal #1 Prevent opioid misuse and abuse; Strategy 3: Prevention opioid misuse in communities, particularly amongst youth.
- <u>Description</u>:
 - Using an evidence-based school and community process, DBHR has expanded CPWI to five additional high-need communities.
 - These CPWI sites will conduct local strategic planning and decision-making to focus on addressing local needs by implementation of evidence-based strategies and programs, as well as, initiating educational events/activities to increase community awareness about prescription drug and opioid misuse/abuse.
- <u>DBHR Lead Manager</u>: STR Prevention Manager Alicia Hughes

- Analysis of Evidence-Based Practices (\$35,000)
 - Goal #1 **Prevent opioid misuse and abuse;** Strategy 3: Prevention opioid misuse in communities, particularly amongst youth.
- Description: Contract with Washington State University (WSU) to conduct analysis of current selection of evidencebased practice with outcomes in the most salient factors related to youth misuse/abuse of prescriptions drugs.
- DBHR Lead Manager: Angie Funaiole & Rebecca Grady

- Community Enhancement Grants (\$300,000)
 - Goal #1 Prevent opioid misuse and abuse; Strategy 4: Promote safe home storage and appropriate disposal of prescription pain medication to prevention misuse.
- <u>Description</u>: Utilize application process to fund services to 10-15 communities in Washington State to implement evidence-based programs and drug take back and educational strategies over the course of one-year with the goal of reducing or preventing prescription medicine and opiate misuse and abuse.
- DBHR Lead Manager: STR Prevention Manager Alicia Hughes

- Hub and Spoke (\$4,995,951)
 - Goal 2: Link individuals with opioid use disorder to treatment support services. Strategy 2: Expand access to and utilization of opioid use disorder medications in communities
- DBHR will expand access for statewide access to Medication
 Assisted Treatment (MAT) and reduce unmet need by developing
 and implementing six (6) hub and spoke models. Hubs are regional
 centers serving a defined geographical area that will support
 spokes.
- Hubs will be responsible for ensuring that at least two of the three Federal Drug Administration approved MAT are available. Spokes (five per hub) are facilities that will provide behavioral health treatment and/or primary healthcare services, wrap around services, and referrals to patients referred to them by the hub.

Hub and Spoke Locations



- Mobile OTP Vans (\$400,000)
 - Goal 2: Link individuals with opioid use disorder to treatment support services. Strategy 2: Expand access to and utilization of opioid use disorder medications in communities
- Funding will be provided to Evergreen Treatment
 Services to purchase, customize, and deploy a mobile van for Opioid treatment to expand services in urban areas.

- Low-Barrier Buprenorphine Pilot (\$130,000)
 - Goal 2: Link individuals with opioid use disorder to treatment support services. Strategy 2: Expand access to and utilization of opioid use disorder medications in communities
- WA-Opioid STR together with ADAI will develop a lowbarrier buprenorphine model to induce and stabilize highly vulnerable people with OUD on buprenorphine in a community based setting.
- People will be provided buprenorphine quickly, typically within 1-48 hours, then will receive flexible dosing/prescribing so that they are able to stabilize over 30-60 days. They will be provided ongoing support of a nurse care manager and transitioned to maintenance at a community based health clinic.

- PathFinder Peer Project (\$1,660,000)
 - Goal 2: Link individuals with opioid use disorder to treatment support services. Strategy 2: Expand access to and utilization of opioid use disorder medications in communities
- PathFinder Peer Project will build on the already established DBHR Projects for Assistance in Transition from Homelessness (PATH) program to provide SUD peers recovery support in two environments, emergency rooms and homeless encampments. The project will link the individuals to needed MAT services and assist in navigating systems and addressing barriers to independence and recovery.

- Tribal Treatment (\$275,000)
 - Goal 2: Link individuals with opioid use disorder to treatment support services. Strategy 2: Expand access to and utilization of opioid use disorder medications in communities
 - WA-Opioid STR funding will be used to add treatment training tracks to currently established tribal conferences, provide funding for tribal participants to attend the conferences.
 Funding will also be used to create and distribute media campaigns for tribes to build awareness related to MAT/OUD treatment options for Native Americans.

- Treatment Payment Assistance (\$242,524)
 - Goal 2: Link individuals with opioid use disorder to treatment support services. Strategy 2: Expand access to and utilization of opioid use disorder medications in communities
- Each of the 10 Regional Service Areas will receive funding to off-set the cost of providing treatment services to opioid use disorder patients who have financial barriers to treatment access. This funding is intended to offset deductible and co-pays for patients seeking treatment for OUD services but are unable to meet co-pay requirements.

- OUD Treatment Decision Re-entry Services & COORP (\$690,500)
 - Goal 2: Link individuals with opioid use disorder to treatment support services. Strategy 2: Expand access to and utilization of opioid use disorder medications in the criminal justice system.
- The reentry work-release and violator programs will be located in five communities across Washington State and provide re-entry services for discharging work-release and parole violators who have been identified as having OUD.
- The second program; Care for Offenders with OUD Releasing from Prison (COORP) will identify incarcerated individuals with OUD, expected to be released, and connect individuals to MAT services in the county of their release, and expedite their enrollment in a Medicaid health plan. Individuals with OUD will receive Naloxone upon release from incarceration.



- Bridge to Recovery (JRA) (\$201,000)
 - Goal 2: Link individuals with opioid use disorder to treatment support services. Strategy 2: Expand access to and utilization of opioid use disorder medications in the criminal justice system.
- Develop an evidenced-based Juvenile Rehabilitation model that reduces substance abuse disorders, increases education and employment opportunities for youth and addresses systemic barriers that perpetuate the cycle, and implement ACRA reentry transition activities that link youth to mainstream services.

- Naloxone Distribution (\$200,000)
 - Goal 3: Intervene in opioid overdoses to prevent death Strategy 2:
 Make system-level improvements to increase availability and use of naloxone.
- WA-Opioid STR funding will provide naloxone to vulnerable and underserved populations in partnership with ADAI. This program will help meet the need by providing naloxone to places at both high relative risk (in terms of the local opioid overdose mortality rate) and high absolute risk (in terms of the total number of fatal overdoses and estimated heroin using population).

- Prescription Monitoring Program (\$250,000)
 - Goal 4: Use data and information to detect opioid misuse/abuse, monitor morbidity and mortality, and evaluate interventions Strategy 1: Improve Prescription Monitoring Program functionality to document and summarize patient and prescriber patterns to inform clinical decision making. Strategy 2: Utilize the PMP for public health surveillance and evaluation
- WA-Opioid STR funding together with the Department of Health (DOH) will support PMP staffing in creating prescriber feedback reports to assist individual providers and provider groups in reviewing their prescribing practices. PMP data will also be provided to DBHR prevention data as an integral part of the developing data books in the development of the CPWI sites and other local substance use disorder planning efforts.

Transforming Lives

Questions & Contact Information

- Questions?
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