

The Opioid Crisis is a Wicked Problem

Jonathan C. Lee MD

April 13, 2019

LHL Conference

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Lawyers Helping Lawyers Conference

April 12, 2019



Wicked Problem Definition
(Oliver, 2015)

- Complex systems with components that interact in poorly understood and unpredictable ways
- Interventions into the system produce downstream consequences that cannot be known in advance and cannot be undone
- Changing one element of the system changes the dynamics of the entire system



Purdue Pharma: maker of OxyContin

- In 2007, Purdue and 3 executives pleaded guilty to misbranding OxyContin and agreed to pay \$634.5 million to resolve a US Dept. of Justice investigation.
- In 2014, >240 million prescriptions were written for prescription opioids (US Dept. of HHS)
- By 2015, ~92 million people in US were prescribed an opioid (Ann Intern Med, 2017)



Objectives

- Discuss the opioid overdose epidemic in the US and in Virginia
- Discuss different perspectives on how to tackle the opioid crisis
- Review the Virginia Board of Medicine regulations related to opioid prescribing and pain management


Addiction Definition
(ASAM, 2011)


- ✦ Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry.
- ✦ Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations.
- ✦ This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.

Purdue sold \$1.74 billion of OxyContin in 2017



- In August 2018, New York joined 26 US states and Puerto Rico to sue Purdue Pharma
 - Widespread fraud and deception in the marketing of opioids, and contributing to a nationwide epidemic that has killed thousands.
 - Misleading doctors and patients by overstating the ability of opioids to improve bodily function, while downplaying the risk of addiction.






Opioid Crisis & the 5th "Vital Sign"

- **Myth** that risk of addiction was low when opioids were prescribed for chronic pain based on a one-paragraph letter that was published in the NEJM in 1980
- In 1996, the American Pain Society introduced "pain as the 5th vital sign"
- The Joint Commission on Accreditation of Healthcare Organizations evaluated pain scores

Misuse or "Nonmedical Use" of Rx
(NIDA, 2016)

- Taking a medication in a manner or dose other than prescribed
- Taking someone else's prescription
- Taking a medication to feel euphoria
- 4 in 5 new heroin users started out by "misusing" prescription opioids



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Farley Center Opioid Overdose Epidemic in the US (CDC, 2017)

- From 1999 to 2016, more than 630,000 people died from drug overdoses
- In 2016, drug overdoses killed ~64,000
 - 2/3 of overdose deaths involved opioids
 - 5 times higher than in 1999
- **115 people die every day from opioid OD**

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Farley Center President's Commission on Combating Drug Addiction and Opioid Crisis (Christie et al., 11/1/17)

- Invest in programs that achieve quantifiable goals
- Accountability by Office of National Drug Control Policy
- Streamline funding to states by using block grants
- Establish drug courts in all 93 federal judicial districts
- Naloxone for first responders
- Training healthcare providers
- Penalize insurers for not covering addiction treatment
- Remove questions about pain in hospital performance satisfaction surveys by the CMS

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Farley Center Funding to Fight Opioid Crisis (The Hill, 9/19/18)

Dept. of HHS awarded >\$1 billion in grants

- \$930 million to support states' treatment and prevention services
- \$352 million to community health centers to increase access to services for SUD and mental health
- \$194 million to conduct research

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Farley Center Contribution of Opioid-Involved Poisoning to the Change in Life Expectancy in the US, 2000-2015 (JAMA, 2017)

- Drug poisoning mortality more than doubled in the United States from 2000 to 2015
- Poisoning mortality involving opioids more than tripled
- **Reduced life expectancy** for non-Hispanic white individuals in the United States from 2000 to 2014

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Farley Center Ten Steps the Federal Government Should Take Now to Reverse the Opioid Addiction Epidemic (JAMA, 2017)

Preventing Opioid Addiction and Overdoses

1. Improve surveillance of possible opioid addiction
2. Improve reporting of and respond to opioid-related overdoses and fatalities
3. Promote more cautious prescribing for acute pain
4. Change labeling for chronic pain and greatly restrict or eliminate marketing of opioids for chronic pain
5. Increase insurance coverage of and access to non-opioid and non-pharmacological management of pain

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Farley Center The Opioid Crisis in Virginia

- 1,227 overdose deaths due to opioids in 2017
- 1,534 overdose deaths due to any drug in 2017
- Governor Northam's Grand Rounds in 2018
 - University of Virginia
 - Eastern Virginia Medical School
 - Virginia Commonwealth University
 - Liberty University
 - Virginia Tech Carilion
 - Edward Via College of Osteopathic Medicine

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Farley Center America's 8-Step Program for Opioid Addiction (The New York Times, 9/30/17)

1. Save lives
2. Treat, don't arrest
3. Fund treatment
4. Combat stigma
5. Support medication-assisted treatment (MAT)
6. Enforce mental health parity
7. Teach pain management
8. Start young with prevention

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Farley Center Ten Steps the Federal Government Should Take Now to Reverse the Opioid Addiction Epidemic (JAMA, 2017)

Treatment and Harm Reduction for Current Users

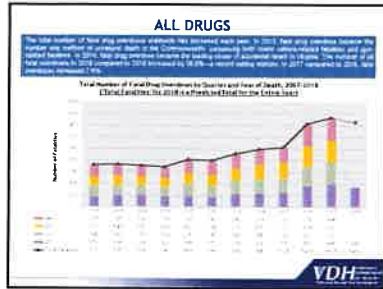
6. Interrupt supply of heroin and illicit synthetic opioids and improve coordination between legal and public health
7. Identify possible opioid addiction early and link individuals to treatment
8. Expand low-threshold access to MAT
9. Implement harm reduction for current users with access to clean syringes and naloxone
10. Remove ultra-high-dosage-unit opioid analgesics from the market

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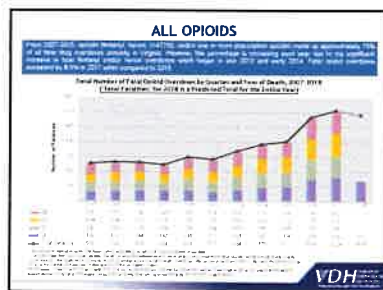


Virginia Board of Medicine Regulations on Opioid Prescribing (8/18/18)

www.dho.virginia.gov

History of Opioid Prescribing in the Commonwealth of Virginia

- 2007--Purdue Pharma paid \$634.5M for "misbranding" with Oxycontin
- 2007--Prescription Monitoring Program got \$20M
- 2007--Board of Medicine develops regulations on pain management and prescribing

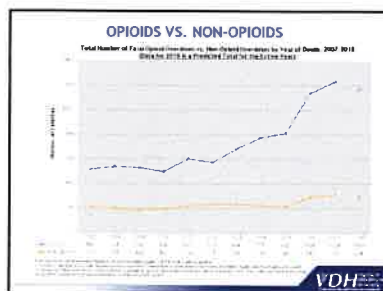


History of Opioid Prescribing in the Commonwealth of Virginia

- 2002-- Concern at the Board about overdose deaths
- 2003-- Legislature gave the Board a simple negligence standard for taking action
- 2003-- Legislature establishes the Prescription Monitoring Program
- 2004-- Board adopted the FSMB Model Policy on the Use of Controlled Substances in the Treatment of Pain

History of Opioid Prescribing in the Commonwealth of Virginia

- 2008-- Executive Branch requested that the Board withdraw its regulations
- Meanwhile, robust enforcement by the Board continued and overdose deaths remained fairly constant
- 2012-- Updated FSMB Model Policy for the Use of Opioid Analgesics in the Treatment of Chronic Pain, adopted by the Board



History of Opioid Prescribing in the Commonwealth of Virginia

- In 2006, the Board of Medicine and the Prescription Monitoring Program, with support from the Medical Society of Virginia, began presentations around the state on pain management and the proper prescribing of opioids.

History of Opioid Prescribing in the Commonwealth of Virginia

- 2014--Governor McAuliffe and Attorney General Herring became concerned about the crisis with prescription drugs and heroin in our communities
- 2014--Gov. McAuliffe forms the Governor's Task Force on Prescription Drug and Heroin Abuse in September
- 2015--Gov. McAuliffe receives the Task Force recommendations in October

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Farley Center Applicability

- Applies to MDs, DOs, DPMs and NPs
- Excludes pain related to cancer, hospice, or palliative care
- Excludes pain treated in a hospital, nursing home, ALF, or long-term care facility, or a walk-in pharmacy
- Excludes patients enrolled in local trials authorized by State or Federal law

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Farley Center Effect of a Single Dose of Oral Opioid and Nonopioid Analgesics on Acute Extremity Pain in the Emergency Department (JAMA, 2017)

- RCT of 411 adult ED patients with acute extremity pain
 - mean score, 5.7 on 11-point numerical rating scale
- Mean pain scores decreased by
 - 4.3 with ibuprofen and acetaminophen (paracetamol)
 - 4.4 with oxycodone and acetaminophen
 - 3.5 with hydrocodone and acetaminophen
 - 3.9 with codeine and acetaminophen
- No significant difference in pain reduction at 2 hours

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Farley Center Higher Dosage, Higher Risk

Higher dosage of opioids is associated with a higher risk of overdose and death. A study of 10,000 patients found that those who received a higher dosage of opioids were 2x more likely to die from an overdose compared to those who received a lower dosage.

HOW MUCH IS 50 OR 90 MME/DAY FOR COMMONLY PRESCRIBED OPIOIDS?

2x
10mg
100mg

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Farley Center Definitions

- Acute pain: associated with a specific incident or a specific part
- Chronic pain: persistent pain that has lasted 3 months
- Controlled substance: Schedule II-IV
- MME: morphine milligram equivalent
- NPI: NP and PA
- Prescription Monitoring Program: electronic system to regulate
- Schedule II-IV: Substance Abuse and Mental Health Services Administration

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Farley Center Management of Acute Pain

Opioid prescriptions for acute pain shall not be for more than 7 days, unless extenuating circumstances exist and are fully documented in the record.

This restriction applies to prescriptions for opioids upon discharge from the emergency department.

Opioid prescriptions for postop pain shall be limited to 14 days, unless extenuating circumstances are documented in the record.

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Farley Center HOW MUCH IS 50 OR 90 MME/DAY FOR COMMONLY PRESCRIBED OPIOIDS?

50 MME/day	90 MME/day
• 30mg Hydrocodone/acetaminophen tablets (30/325)	• 10mg Hydrocodone/acetaminophen tablets (10/325)
• 30mg Oxycodone/acetaminophen tablets (30/325)	• 10mg Oxycodone/acetaminophen tablets (10/325)
• 10mg Morphine tablets (10mg)	• 10mg Morphine tablets (10mg)

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Farley Center Management of Acute Pain

1. Consider non-pharmacologic and non-opioid treatments prior to using opioids
2. If necessary, a short-acting opioid shall be written at the lowest dose for the longest possible days
3. An appropriate history and physical, an assessment of the patient's history and risk of substance misuse
4. Check of the Prescription Monitoring Program if the prescription will exceed 7 days

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Farley Center Management of Acute Pain

1. Consider the MME
2. Document why the initial dose should exceed 50 MME/day
3. Prior to prescribing 100 MME/day, document the justification or consult with or refer to a pain management specialist

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Farley Center HOW MUCH IS 50 OR 90 MME/DAY FOR COMMONLY PRESCRIBED OPIOIDS?

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HOW SHOULD PROVIDERS USE THE TOTAL DAILY OPIOID DOSE IN CLINICAL PRACTICE?

1. The absolute ceiling dose for patients on chronic therapy is 90 MME per day.
2. The first prescription should always be 30 MME per day.
3. When an initial dose and to be more precisely titrated, starting with 15 MME per day is a more conservative approach.
4. Most patients will need to be on 30 MME per day.

"The average individual who receives chronic therapy with a prescription opioid will not require a high maintenance dose of any opioid."

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BE PREPARED. GET NALOXONE. SAVE A LIFE.

"For patients currently taking high doses of opioids as prescribed for pain, individuals misusing prescription opioids, individuals using illicit opioids such as heroin or fentanyl, health care practitioners, family and friends of people who have an opioid use disorder, and community members who come into contact with people at risk for opioid overdose, knowing how to use naloxone and keeping it within reach can save a life."

-Surgeon General Jerome Adams

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Management of Chronic Pain

1. Informed consent for risks and benefits
2. Securing the drug
3. Proper disposal of unused drug
4. Exit strategy if opioids are not effective

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Management of Acute Pain

Naloxone shall be prescribed when factors of prior overdose, substance misuse, doses in excess of 120 MME/day, or concomitant benzodiazepine is present

Other drugs that depress the central nervous system, such as sedative hypnotics, carisoprodol, tramadol, etc. should only be co-prescribed in extenuating circumstances, or tapered to the lowest possible effective dose

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Management of Chronic Pain

Evaluation prior to starting an opioid includes a history, physical and mental status

Elements to be included:

- Nature and intensity of the pain
- Current and past treatments for pain
- Underlying coexisting disorders or conditions
- Effect of the pain on physical and psychosocial function, quality of life and ADLs

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Management of Chronic Pain

1. Consider non-pharmacologic and non-opioid treatments
2. Document why the initial dose must exceed 50 MME/day
3. Prior to exceeding 120 MME/day, document the justification or consult with or refer to a pain management specialist

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REVIVE!

OPIOID OVERDOSE AND NALOXONE EDUCATION FOR VIRGINIA

Courtesy of the Virginia Department of Behavioral Health and Developmental Services

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Management of Chronic Pain

[Redacted content]

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Management of Chronic Pain

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Management of Chronic Pain

Practitioner shall regularly evaluate the patient for substance misuse and begin treatment, consult with an appropriate healthcare provider, or refer the patient for evaluation and treatment

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Farley Center "A pill alone cannot solve the opioid epidemic" (Manejwala, 2017)

- Sensible prescribing
- Social determinants of health
- Decriminalization
- Evidence-based interventions
- Treatment of co-occurring disorders
- Medication assisted treatment
 - Methadone (full opioid agonist)
 - Buprenorphine/naloxone (partial opioid agonist)
 - Naltrexone (opioid antagonist)

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Farley Center Artificial Intelligence Scans Twitter for Signs of Opioid Abuse (Scientific American, 10/30/17)

- Geotagged tweets using drug handles
 - Dummies (fentanyl)
 - Captain Cody (Robitussin with codeine)
- Pinpoint clusters of opioid problems more quickly than National Survey on Drug Usage and Health
- Social media can be a reliable source of epidemiological data regarding substance use

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Management of Chronic Pain

Every 3 months:

- Review the course of treatment, new information on the origin of the pain, and the patient's overall state of health
- Document the rationale for continued prescribing of opioids
- Check the Prescription Monitoring Program
- Urine screen or serum levels for the first year, every 6 months thereafter
- Regularly evaluate for opioid misuse disorder, initiate treatment, consult or refer

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Farley Center Effects of XR-Naltrexone on Brain Response to Drug Related Stimuli in Patients with Opioid Use Disorder

- Functional MRI measured brain responses to opioid-related and control images in detoxified patients with OUD before, during and after XR-NTX
- 24 patients with OUD included in analyses
- XR-NTX reduced responses to opioid-related stimuli in the nucleus accumbens and medial orbitofrontal cortex
- Reduced NAcc and mOFC opioid cue reactivity was correlated with reduction in clinician-assessed and self-reported withdrawal symptoms

Shi Z, et al. J Psychiatry Neurosci 2018;43(4):254-261

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Farley Center What about Narcotics Anonymous?

- Paucity of attention to Narcotics Anonymous in current public, professional, and policy responses to rising opioid addiction (White, Galanter et al., 2016)
- Since the 1950s, NA has provided mutual support for members with opioid/drug addiction
- 12-step facilitation is effective, accessible, and enhances cognitive and behavioral changes necessary for recovery (NIDA, 2012)

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Farley Center Buprenorphine Indicated for Treatment of Opioid Use Disorder

- Must have a waiver from SAMHSA and an X number from DEA
- Must follow all federal and state laws and regulations
- PA's and NP's shall only prescribe buprenorphine by practice agreement with a waivered physician
- Provide or refer for counseling and document in the record

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Farley Center Innovative engagement strategies

- Community care coordinators
- Telephonic recovery coaching
- Digital apps on smart devices

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Farley Center Patient Engagement is Key

- ✓ Attract patients to care
- ✓ Develop trust
- ✓ Form partnerships
- ✓ Support long-term recovery

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"We must stop treating addiction as a moral failing, and start seeing it for what it is: a chronic disease that must be treated with urgency and compassion."

Vivek H. Murthy, MD, MBA
19th Surgeon General of the US

Farley Center What is the Nervous System?

- Consists of billions of nerve cells (neurons)
- Neurons communicate with chemical messengers (neurotransmitters)

Farley Center Nervous System Affects

- Sleep
- Memory
- Thoughts & Desires
- Mood & Emotion
- Aggression
- Behavior
- Movement

Neurobiology of Addiction
The Disease Model

Farley Center How Do Neurons Communicate?

neurotransmitter
First neuron: branches out at axon
synaptic cleft
receptors for neurotransmitter
second neuron: cell body for sending

Farley Center Peripheral & Central Nervous System

Farley Center Objectives

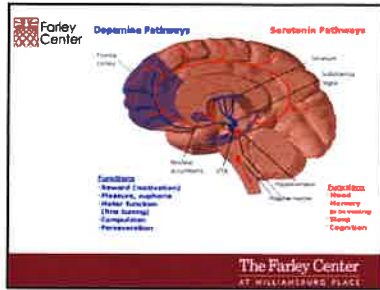
1. Learn that addiction is a primary brain disease.
2. Compare alcoholism and other drug dependencies to chronic medical illnesses.
3. Provide an overview of treatment.
4. Understand compliance with treatment is difficult and exacerbations of illness is not uncommon.

Farley Center Neurotransmitters

- Dopamine: Reward, Euphoria
- Serotonin: Mood, Appetite, Sex
- Norepinephrine: Attention, Concentration
- GABA: Relaxation, Sleep
- Glutamate: Arousal, Wakefulness
- Endorphins: Natural pain killers
- Opioid Peptides: Pain, Mood

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Farley Center Criteria for Disease Entity

- Etiology
- Predisposition or risk factors
- Prevalence
- Symptoms
- Signs
- Degrees of severity
- Natural course of the respective disease

Farley Center Disruption of Reward Pathway

- Neurochemicals in the body and brain maintain biological homeostasis
- Psychoactive substances disrupt systems that induce craving and satiation for survival functions (eat, drink, sleep, sex)
- Craving for drugs replaces survival functions

Farley Center Disease (Merriam-Webster)

- Impairment of the normal state of a living animal that interrupts or modifies the performance of vital functions
- Typically manifested by distinguishing signs and symptoms
- Response to environmental factors, specific infective agents, inherent defects of the organism, or combinations of these factors

Farley Center American Medical Association (AMA)

- Declared that alcoholism was an illness in 1956
- Endorsed dual classification of alcoholism by the International Classification of Diseases under both psychiatric and medical sections in 1991

Farley Center Dopamine and Rewards Pathway

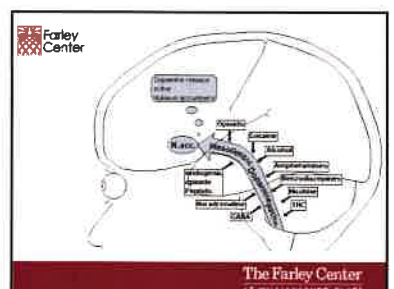
- Addictive drugs stimulate dopamine secretion
- Genetically predisposed addicts are identifiable by their unique response to mesolimbic increased secretion of dopamine

Farley Center Entity (Merriam-Webster)

Disease or condition that has separate and distinct existence and objective or conceptual reality.

Farley Center Etiology of Addiction

- Neuroadaptation or changes in brain neurons
- Disruption of dopamine reward pathway
- Alter cognitive and reward processes
- Alter brain chemistry



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Farley Center Pathology of Reward System

- Neurobiological mechanisms and brain changes are likely associated with
 - Binge eating disorder
 - Gambling disorder
 - Internet gaming disorder
 - Problematic sexual behaviors
 - Behaviors driven by reward, withdrawal, and elements in the environment

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Farley Center Risk Factors for Addiction

- Early exposure to substances
- Co-occurring psychiatric disorders
- Addictive potential of drugs used
- Route of administration
- Lifestyle issues
 - Access to drugs
 - Attitude toward drugs
 - Stress

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Farley Center Symptoms of Substance Use Disorders (SUD)

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Farley Center Predisposition for Addiction

- Children of alcoholics have 3-4 times increased risk of developing addiction
- Sons of alcoholics are 4 times more likely to be alcoholic than sons of non-alcoholics
- Family environment

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Farley Center Prevalence of Alcohol Use Disorders in the United States in 2015 (NIAAA)

- 15.1 million (6.1%) adults ages 18 and older
 - 9.8 million men (6.4%)
 - 5.3 million women (4.2%)
- 623,000 adolescents (2.5%) ages 12-17
 - 115,000 females (18.7%)
 - 288,000 males (12.2%)

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Farley Center Diagnosing SUD in DSM-5

- 11 criteria
- Criterion eliminated: recurrent legal problems
- Criterion added: **craving** or strong desire to use
- Severity
 - Mild: 2-3 symptoms
 - Moderate: 4-5 symptoms
 - Severe: 6 or more symptoms

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Farley Center Genetic Influences in Addiction

- Twin studies
 - Male monozygotic: 60% concordance
 - Male dizygotic: 39% concordance
- Adoption studies
 - Non-alcoholic adoptive parenting did not significantly change risk of developing alcoholism

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Farley Center Symptoms of Substance Use Disorders (DSM-5)

- Using larger amounts or over a longer period than was intended
- Desire to cut down or unsuccessful efforts to control use
- Great deal of time spent obtaining, using or recovering from use
- Craving, or a strong desire or urge to use substance
- Failure to fulfill major role obligations at work, school, or home
- Continued use despite recurrent social or interpersonal problems
- Giving up social, occupational, recreational activities due to use
- Recurrent use in situations in which it is physically hazardous
- Continued use despite physical or psychological problem caused or exacerbated by use
- Tolerance
- Withdrawal

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Farley Center Signs of Addiction

- Physical
 - Weight loss or weight gain
 - Organ disease
- Mental
 - Depression, irritability, lability
 - Sleep disturbances
- Behavioral
 - Lying
 - Stealing

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Farley Center American Society of Addiction Medicine
Definition of Addiction (2011)

- Primary, chronic disease of brain: reward, motivation, memory and related circuitry
- Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations
- Individual pathologically pursues reward and/or relief by substance use and/or other behaviors

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Farley Center Neurobiology of Addiction

- Drug addiction or substance dependence is a chronic, progressive, relapsing disorder characterized by the following
 - Compulsion to seek and take the drug
 - Loss of control in limiting intake
 - Emergence of a negative emotional state when access to the drug is prevented
 - Continued use despite negative consequences (Koob and Le Moal 1997)

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Farley Center Definition of Craving

- Desire for the previously experienced effects of an intoxicating substance
- Desire can become compelling and can increase in the presence of both internal and external cues, particularly with perceived substance availability
- Characterized by an increased likelihood of drug-seeking behavior and/or drug-related thoughts (United Nations International Drugs Control Programme and World Health Organization 1992)

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Farley Center ASAM Definition of Addiction (2011)

- Inability to consistently abstain
- Impairment in behavioral control
- Craving
- Diminished insight in significant problems with behavior and relationships
- Dysfunctional emotional response
- Cycles of relapse and remission
- Progressive in nature

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Farley Center Stages of Addiction Cycle

- The stages of addiction cycle include
 - Binge/intoxication
 - Withdrawal/negative effect
 - Preoccupation/anticipation (craving)
 - Transition to addiction (Koob 2004)

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Farley Center Types of Craving

- **Type 1 (drugs or reward)**
 - Induced by stimuli that have been paired with drug self-administration
 - Conditioned positive reinforcement
- **Type 2 (people, places, and things)**
 - State change characterized by dysphoria and anxiety
 - Hypersensitivity to states of stress and environmental stressors that lead to relapse and drug-seeking behavior

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Farley Center ASAM Definition of Addiction (2011)

- Can result in **DISABILITY** and/or **DEATH**
- Treatment and/or engagement in **RECOVERY** activities can **PREVENT** disability and/or premature death
- Full definition available at www.asam.org

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Farley Center Neurochemical Neurocircuits in Drug Reward (Koob and Volkow 2010)

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Farley Center Extended Amygdala and Craving

- **Memories** related to drug abuse are transformed into craving to use a drug again
- Chronic drug use and conditioning may bring about changes that can be detected by **brain scans**
- These changes may be reversible through sobriety, recovery activities, medication and psychotherapy.

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Farley Center Examples of Chronic Disease

- Alcoholism and Drug Addiction
 - Dysfunction of the brain
- Diabetes mellitus
 - Dysfunction of the pancreas
- Congestive Heart Failure (CHF)
 - Dysfunction of the heart

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Farley Center Relapse Prevention
Gorski & Miller in Staying Sober

- Stabilization of addiction
- Assessment of relapses
- Education on addiction
- Warning sign identification
- Warning sign management
- Inventory training
- Review of recovery program
- Involvement of others
- Follow-up and reinforcement

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Farley Center Extended Amygdala and Craving

- Links **environmental stimuli** to both the rewarding effects of drugs and to withdrawal
- Inactivation of the **basolateral nucleus of the amygdala (BLA)** in rats disrupts the association of environmental stimuli with the rewarding effects of food, water, and sex (Everitt and Robbins 2005)

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Farley Center Progression of Chronic Disease

- Living to drink→Drinking to live→Drinking to die...
- Impaired glucose tolerance→Diabetes→Neuropathy→Nephropathy
- Stages of CHF: high risk→asymptomatic dysfunctional left ventricle→symptomatic→refractory end-stage

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Farley Center SAMHSA Definition Of Recovery (2011)

Process of change through which individuals

- Improve their health and wellness
- Live a self-directed life
- Strive to reach their full potential

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The Memory of Drugs

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Farley Center Management of Chronic Disease

- Lifestyle modifications
- Self-help groups
- Monitoring (UDS, blood sugars, fluid status)
- Psychosocial treatments
- Medications
- Relapse prevention

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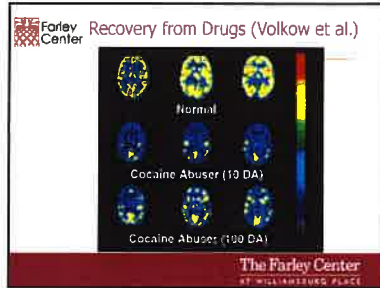
Farley Center SAMHSA Definition Of Recovery (2011)

- **Health:** physical and emotional
- **Home:** a stable and safe place to live
- **Purpose:** meaningful daily activities
- **Community:** relationships and social networks that provide support, friendship, love and hope

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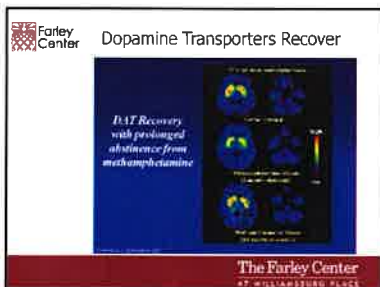
The Opioid Crisis is a Wicked Problem

Jonathan C. Lee, MD



- Farley Center Continuum of Care
- Early Intervention
 - Outpatient
 - Intensive Outpatient
 - Partial Hospitalization
 - Residential
 - Inpatient
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- Farley Center Treatment Duration (NIDA)
- Most addicted people need at least 3 months in treatment to maintain abstinence
 - Longer treatment times result in better outcomes
 - Recovery from drug addiction is a long-term process that often requires several episodes of treatment and ongoing support from family and/or community
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- Farley Center Management of Addiction
- Identify
 - Intervene
 - Evaluate
 - Detoxification (if indicated)
 - Treatment
 - Aftercare
 - Monitoring and Accountability
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- Farley Center 12-Step Recovery (AA, NA, etc.)
- 12-step facilitation is an effective, accessible and inexpensive means of getting sober
 - Enhances cognitive and behavioral changes necessary for recovery
- National Institute on Drug Abuse (2012). 12-Step Facilitation Therapy (Alcohol, Stimulants, Opiates). In Principles of Drug Addiction Treatment: A Research-Based Guide (Third Edition).
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- Farley Center ASAM Multidimensional Assessment
1. Acute intoxication and/or withdrawal potential
 2. Biomedical conditions and complications
 3. Emotional, Behavioral, or Cognitive conditions and complications
 4. Readiness to change
 5. Relapse, continued use, or continued problem potential
 6. Recovery & Living Environment
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- Farley Center Detoxification
- Medically managed/supervised withdrawal
 - First step to achieving abstinence
 - Abstinence ≠ Recovery
 - Education starts here
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- Farley Center Medications for Relapse Prevention
- Alcohol Dependence
 - Opioid Dependence
 - Nicotine Dependence
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Farley Center Medications for Alcohol Dependence

- Disulfiram (Antabuse)
- Acamprosate (Campral)
- Naltrexone
 - Oral (ReVia)
 - Injectable depot (Vivitrol)

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Farley Center Medications for Nicotine Dependence

- Nicotine Replacement Therapy (NRT)
 - Patch
 - Lozenge
- Bupropion SR (Zyban or Wellbutrin SR)
- Varenicline (Chantix)

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Farley Center Relapse in Addictive Disorders

- Due to acute and chronic neuroadaptation in the brain from addiction, cravings can maintain addictive drug-seeking behaviors and lead to relapse even after a prolonged period of abstinence.
- In the future, neuroimaging studies may be used clinically to not only provide data on the reactivity of the neurocircuitry but also to correlate data with treatment efficacy and risk of relapse.
- Treatment that promotes recovery and diminishes cravings can decrease the likelihood of relapse.

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Farley Center Functional Polymorphism of the mu opioid receptor gene (OPRM1) (Lee et al. 2012)

- Asn40Asp polymorphism
- Greater subjective reinforcement from alcohol consumption
- Post hoc analyses of the COMBINE study (Anton et al. 2008)
- May predict response to naltrexone

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Farley Center Relapse Rates in Chronic Disease (McLellan et al. JAMA, 284:1689-1695, 2000)

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Farley Center Medications for Opioid Dependence

- Naltrexone
- Buprenorphine
- Methadone

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Farley Center Exacerbations of Chronic Illness

- Relapse in addiction is similar to what happens with other chronic illnesses
- Continual evaluation
- Treatment modification

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BIO

Dr. Jonathan Lee is the Medical Director and has been with the Farley Center at Williamsburg Place since 2010.

He completed residency in combined internal medicine/psychiatry at Duke University Medical Center.

He is board certified in addiction medicine, internal medicine, and psychiatry.

He is an assistant professor at Eastern Virginia Medical School.

He is serving as president-elect of the Virginia Society of Addiction Medicine.