Integrative Approach to Medication Assisted Treatment (MAT) for Substance Use Disorders

CAPT Ted L. Hall, PharmD, BCPP, R.Ph.
DHHS/USPHS/IHS
Ho-Chunk Nation Health Department
Advanced Practice Pharmacist II
Clinical Psychiatric Pharmacist Prescriber

Disclaimer:

The opinions and conclusions expressed today are those of the author and do not necessarily represent the views of the Department of Health and Human Services, US Public Health Service, the Indian Health Service or the Ho-Chunk Nation.

The speaker has no relevant financial or nonfinancial relationships within the products or services described, evaluated, or compared in this presentation.

Objectives

- Define addiction as a primary, chronic and relapsing disease of the brain consisting of complicated psychological and behavioral symptoms
- Differentiate between the various medication assisted treatment options for opioid dependence substance use disorders for stabilization, maintenance and abstinence.
- Describe Ho-Chunk Nation Medication Assisted Treatment (MAT) services
- Discuss Methamphetamine Use Disorder Treatment options
- Identify various components of holistic recovery programs and their role in Medication Assisted Treatment plans.

Addiction Definition: DSM 5

- Diagnostic and Statistical Manual of Mental Disorders 5th Edition (DSM 5)
  - Substance Use Disorder:
    - The essential feature of a substance use disorder is a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues using the substance despite significant substance-related problems" (pg. 483 DSM5)

Addiction Definition: ASAM

- American Society of Addiction Medicine
  - *Short Definition*: 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. (Adopted by the ASAM Board of Directors 04/19/11)

http://www.asam.org/for-the-public/definition-of-addiction

Addiction Definition: ASAM

- American Society of Addiction Medicine
  - *Short Definition*: Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.

(Adopted by the ASAM Board of Directors 04/19/11)

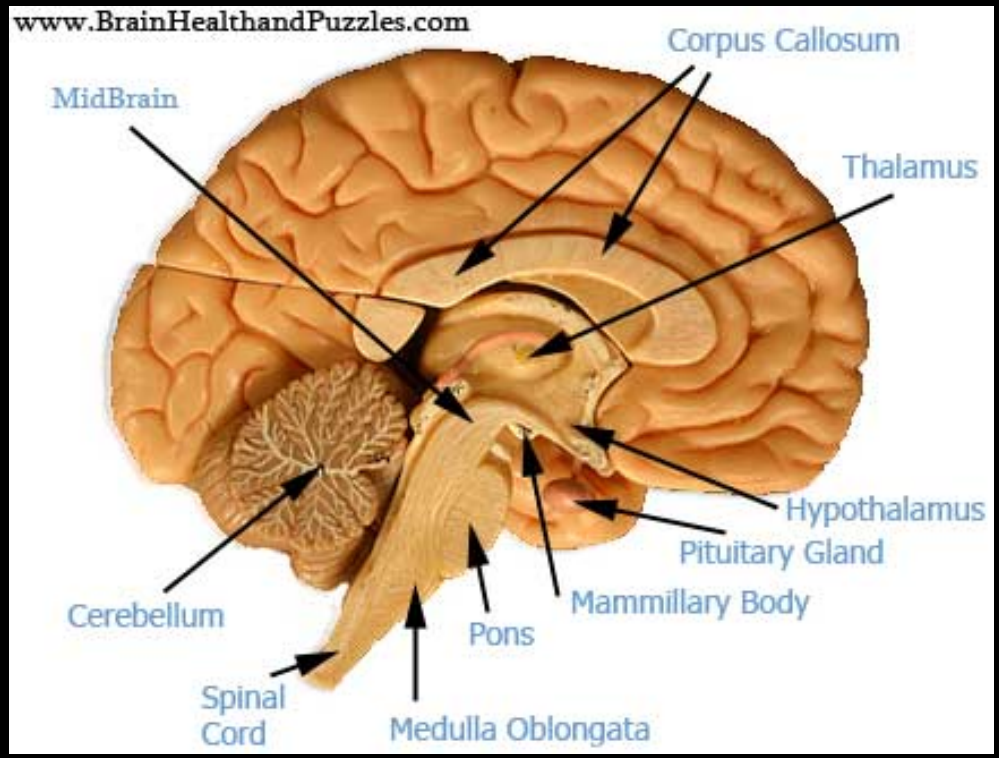
http://www.asam.org/for-the-public/definition-of-addiction

Chronic Brain Disorder: Organic Brain

-Cerebrum (Cortex): responsible for higher functioning, reasoning, rational action

-Limbic System: “emotional brain”; responsible for basic survival such as fight, flight, freeze and instant gratification (reward center).

-Cerebellum (Brain Stem): involuntary functions such as breathing, heart beating, etc.



http://clipart-library.com/clipart/gie5Gr85T.htm

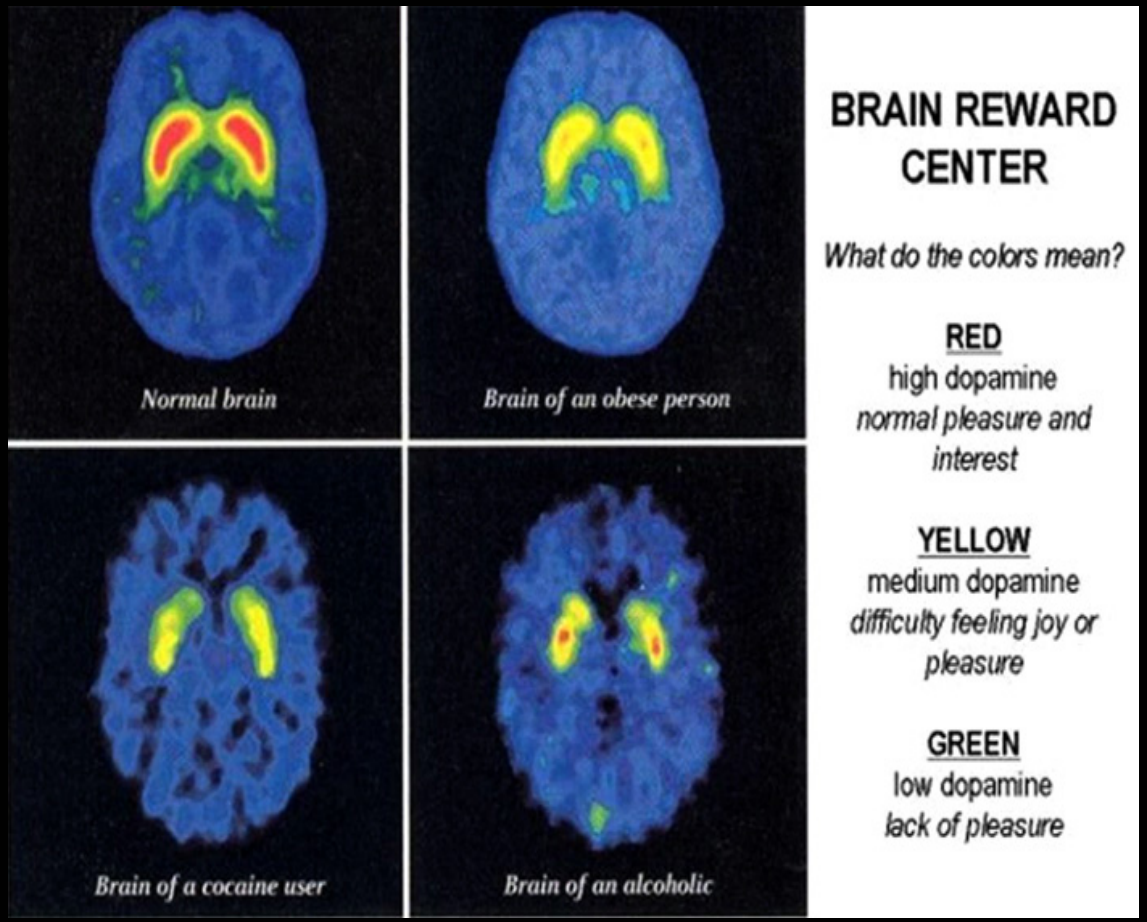
Chronic Brain Disorder: Neurochemical

Serotonin: mood, sleep, emotion

Norepinephrine: mental arousal, elevated mood

Endorphins/Enkaphalins: natural opiates/pain modulators and anti-anxiety chemicals. Produce physical dependence

Dopamine: reward chemical, controls arousal levels of the brain, vital for giving physical motivation. Critical chemical in addiction



http://www.thinwomanbrain.com/the-food-addicts-brain.php

Epidemiology

- 20.5 million Americans over 12 y.o. (2015) had a substance use disorder
  - 2 million had a prescription pain medication substance use disorder
  - 591,000 had a heroin substance use disorder

- Drug overdose is leading cause of accidental death in the U.S.

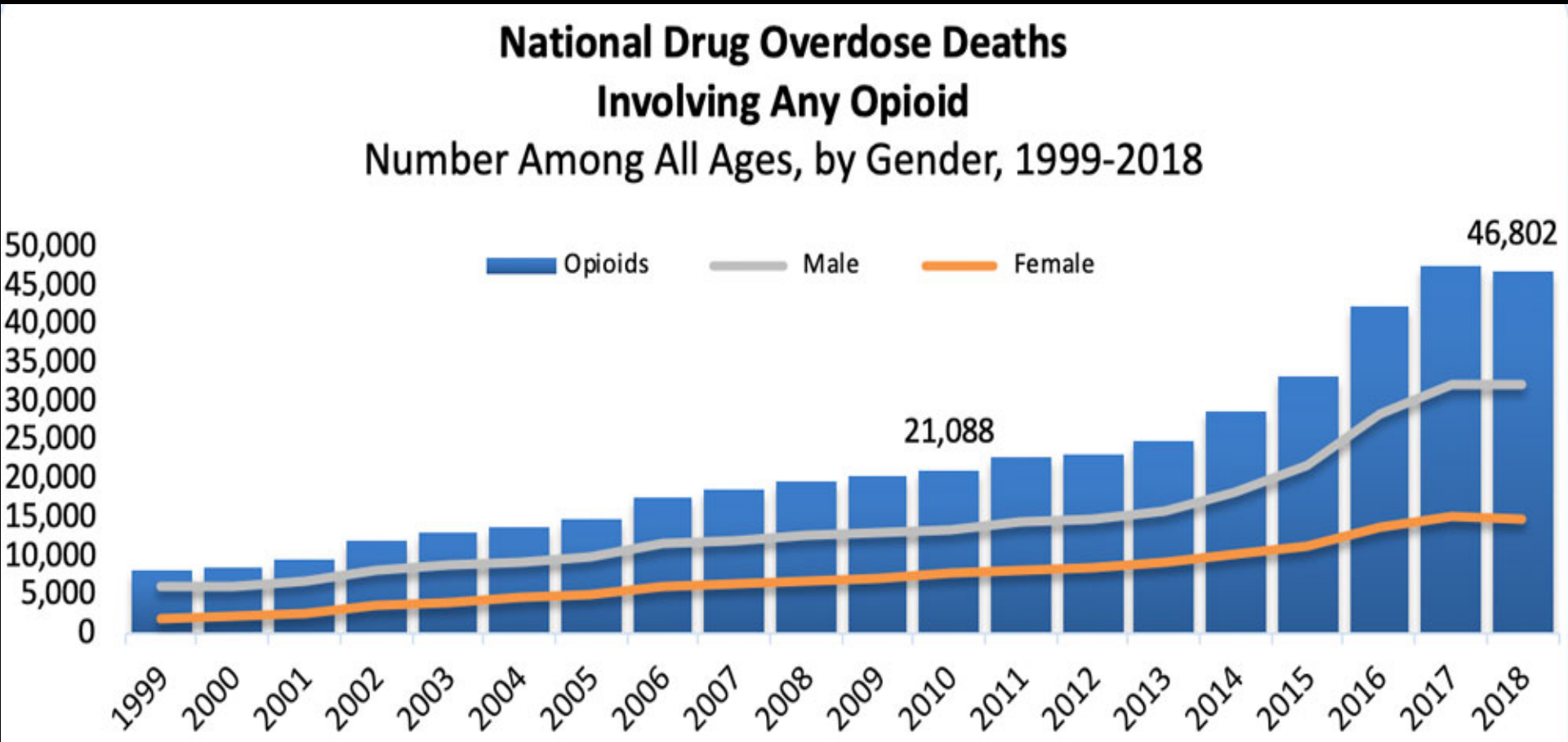
- Four in five new heroin users started out misusing prescription pain killers.

http://www.asam.org/docs/default-source/advocacy/opioid-addiction-disease-facts-figures.pdf

Overdose Rate

https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates; Revised January 2019

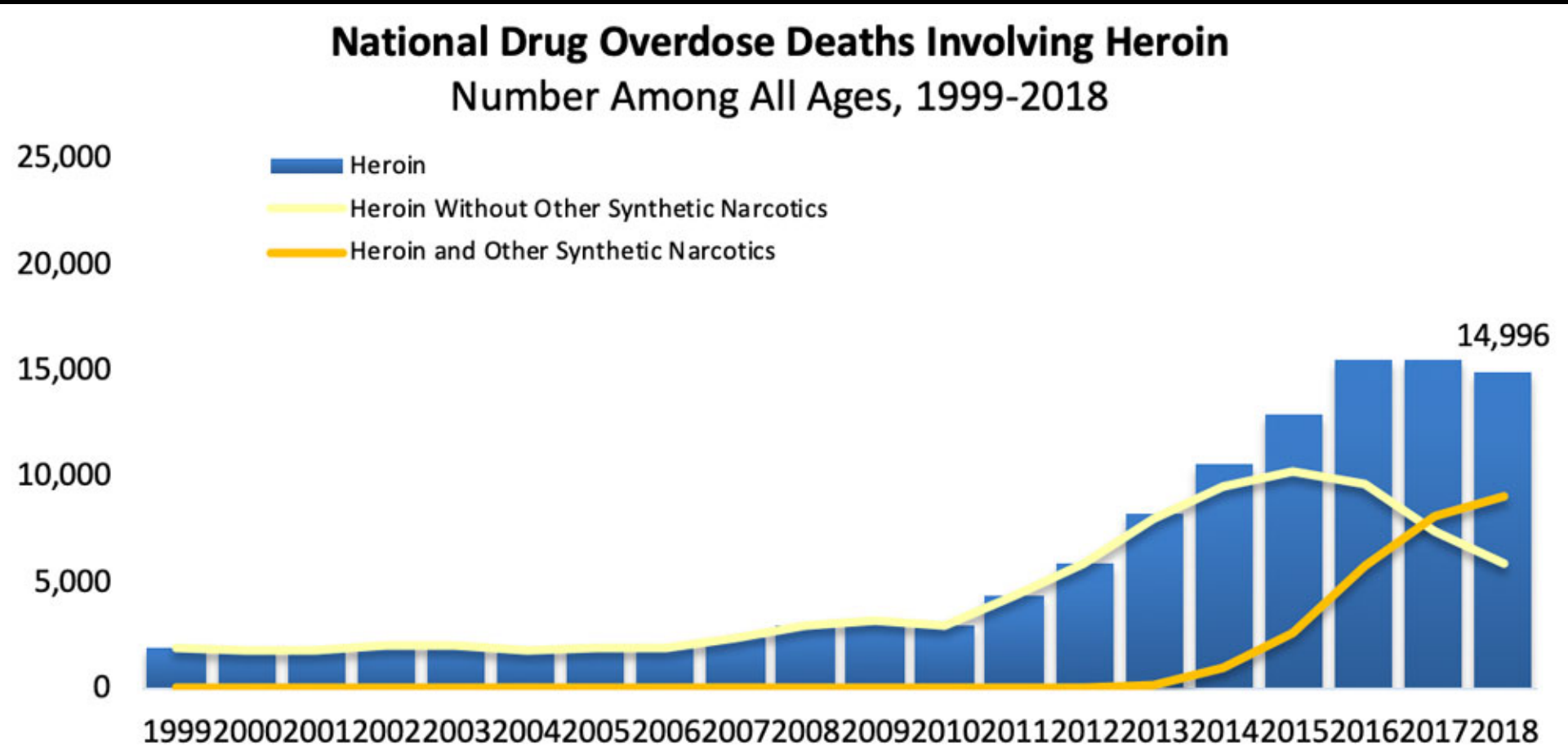
5.9-fold increase in the total number of deaths from 1999 to 2018



Overdose Rate

https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates; Revised January 2019

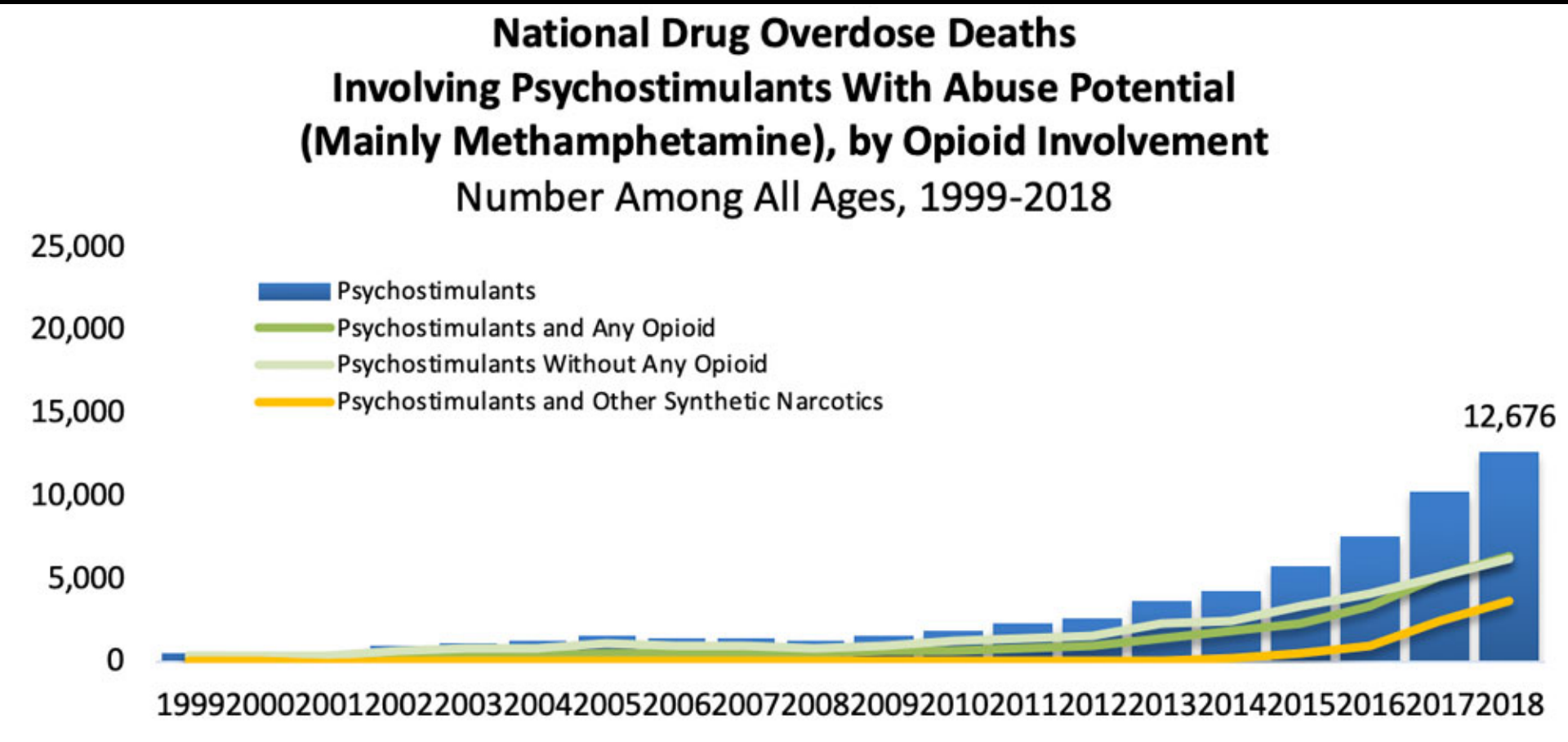
7.8-fold increase in the total number of deaths from 1999 to 2018



Overdose Rate

https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates; Revised January 2019

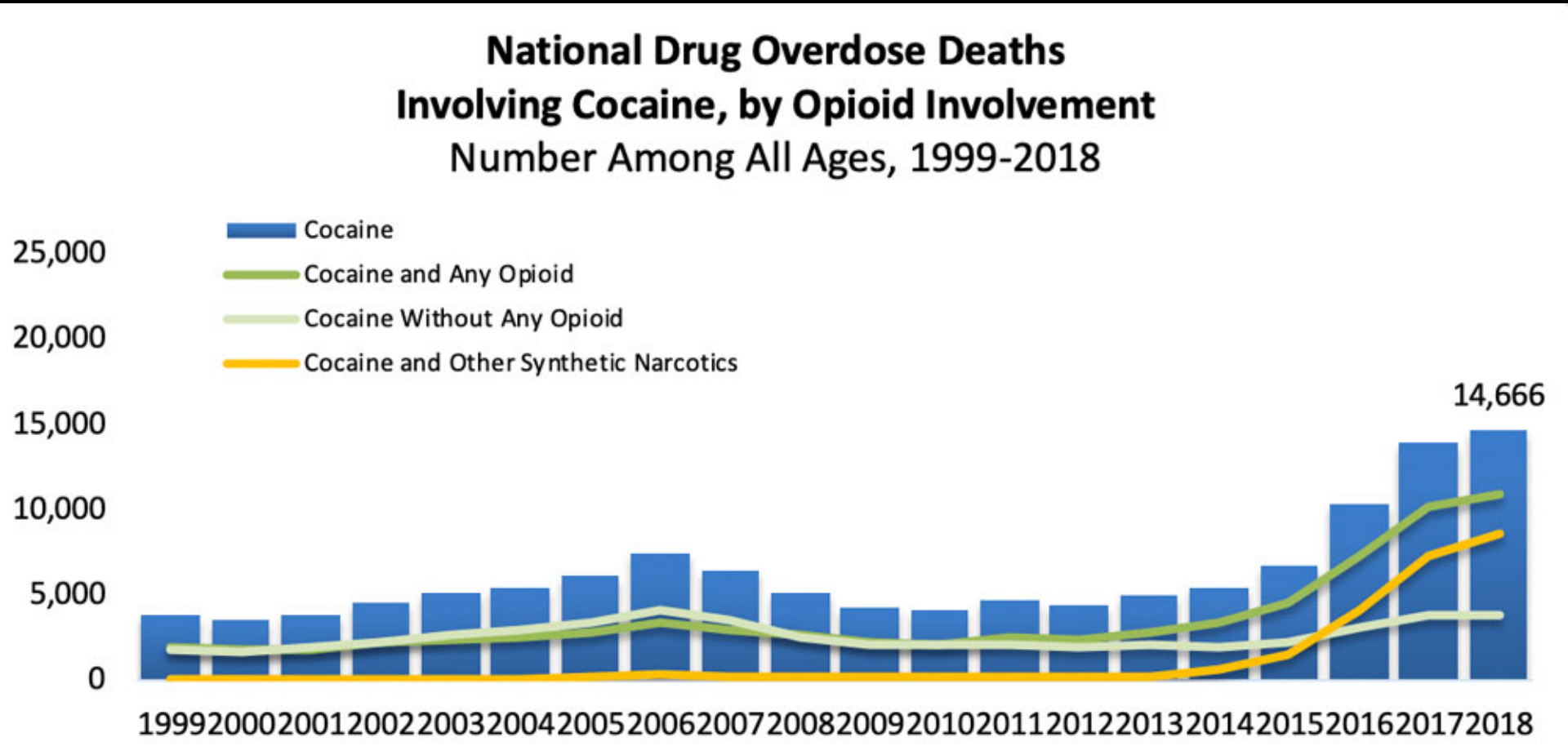
18.8-fold increase in the total number of deaths from 1999 to 2018



Overdose Rate

https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates; Revised January 2019

3.6-fold increase in the total number of deaths from 1999 to 2018



Tribal Statistics

- Native Americans use and abuse alcohol and other drugs at YOUNGER ages and HIGHER rates than ALL other ethnic groups.

- Northern Plains Study:
  - 61% children report having traumatic event
  - 60% diagnosed with depressive disorder also had substance abuse disorders (dual diagnosis)

http://www.psych.org/Share/OMNA/Mental-Health-Disparities-Fact-Sheet--American-Indians.aspx

Midwest Problem

The Economist | World politics | Business & finance | Economics | Science & technology | Culture

Heroin in the Midwest

A hydra-headed scourge

How the Midwest is battling a drug epidemic

Sep 19th 2015 | CHICAGO | From the print edition

Timekeeper | Like 5.7K | Tweet

EVEN street-savvy former gang members are shocked by the spread of heroin to Chicago's suburbs. Earlier this year, when Roberto Hernández, a Puerto Rican, was in the final stages of preparation of a big push by Gangs to Grace, a church ministry on the west side, to save Latino gang members from lives of violent crime, he explained that white girls from the suburbs go to neighbourhoods even he wouldn't set foot in to buy heroin. Many of them are as young as 14 or 15. Some prostitute themselves to fund their addiction.

"We have the worst heroin problem in the nation in the Chicago area," says David Cohen, a recovering heroin addict who counsels addicts at Insight Behavioural Health, a treatment centre. Greater Chicago has the highest number of emergency-room visits related to heroin in the country with 24,627 visits in 2011 (the latest year for which records exist), compared with 12,015 in New York. In Chicago 35% of substance-abuse treatment admissions are for heroin, compared with 16% nationwide. And demand, especially from young women, keeps rising: on the city's west side business is booming at what insiders

"Heroin hit the Midwest harder than other places because the coasts learned to deal with the problem in the 1960's…"

Grand Forks Herald

Search | Overcast WEATHER 54°

News | Sports | Accent | Obituaries | Outdoors | Opinion | Celebrations

UPDATE: Victim's name released in Grand Forks shooting

Tweet

Overdose cases in Williston likely related; heroin possibly laced

By Williston Herald on Jan 14, 2016 at 9:34 p.m.

6

WILLISTON, N.D. – Some of last week's series of drug overdoses in Williston were likely related, and the heroin used may have been laced with another substance -- possibly fentanyl, a powerful painkiller that amplifies heroin's effects -- or just had a higher purity.

Emergency responders treated another heroin overdose victim Tuesday night in Williston, but authorities aren't sure if that incident was related to the eight overdoses and one death that took place within a recent six-day span.

Frank Miller, 30, died after he was found unresponsive in a Sixth Avenue West home last Tuesday.

PRINT

TRENDING

1. UPDATE: Victim's name released in Grand Forks shooting
2. UND HOCKEY: Strange sight to see
3. Ali Lauren Sondreal
4. Peyton Manning calls family of Dickinson woman after her motorcycle injury
5. THE TREND: Shooting in Grand Forks; UND hockey; ex-UND prof pleads guilty to child porn; man accused of firebombing pleads not guilty

"The alarming streak of overdoses prompted an immediate response from state, local and federal authorities…"

Carfentanil

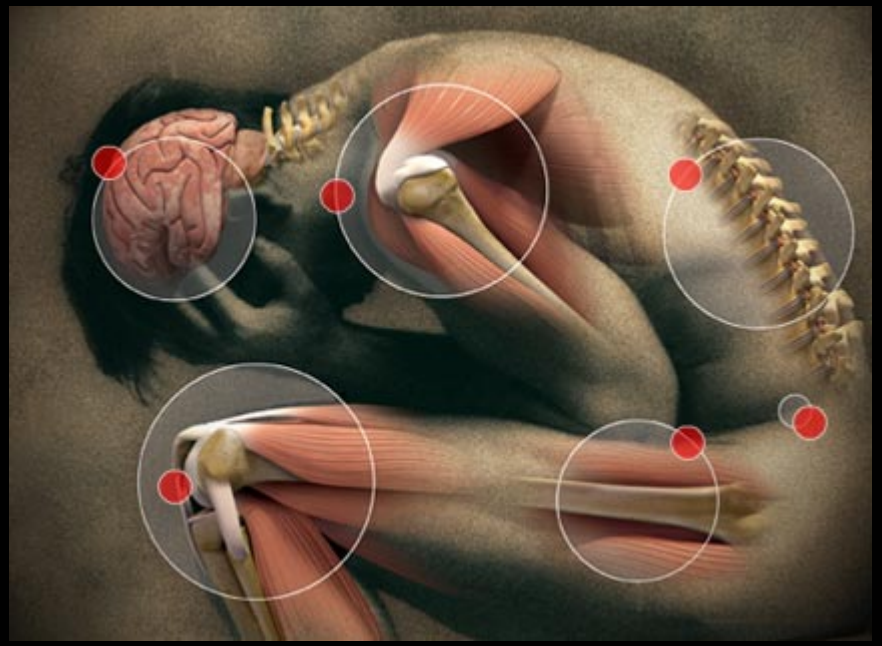
- Fentanyl is 50 – 100 times stronger than morphine
- Carfentanil is ***10,000*** times stronger than morphine
  - No safe dose for humans
    - Narcan may not be able to revive someone who has come in contact with carfentanil

Timeline Photos

breathing again. The picture compares the lethal amounts of heroin, fentanyl, and carfentanil. Read more and find some on-scene safety tips at http://www.usfra.org/group/drug-safety-for-first-responders/forum/topics/dea-warnings-about-carfentanil-fentanyl

Addiction: Internal Motivation Change for Continued Use

- Quickly changes from ‘getting high’ and feeling good (euphoria) to avoiding getting sick and avoiding withdrawal syndromes at all costs



Opioid Withdrawal Syndrome

Early Phase Symptoms

(6-12 hours last dose)

- Agitation/Anxiety
- Myalgia (muscle aches)
- Hyperlacrimation (tearing)
- Rhinorrhea (runny nose)
- Diaphoresis (sweating)
- Excessive Yawning
- Insomnia

Late Phase Symptoms

(48-72 hours last dose)

- Abdominal Cramping
- Diarrhea
- Mydriasis (dilated pupils)
- Horripilation (goose bumps)
- Nausea
- Vomiting

*Acute withdrawal can last up to 5-10 days after last dose of short-acting agents and up to 3-4 weeks for long-acting agents

Post-acute withdrawal syndrome can last ***months*

http://www.nhtsa.gov/people/injury/research/job185drugs/morphine.htm

Aberrant Behaviors: Symptoms v. Criminal Activities

- *Extreme discomfort of withdrawal typically results in aberrant behaviors, which are often also illegal activities*
  - Buying illicit substances and continued abuse
  - Larceny (males)
  - Sexual Solicitation (females)
  - Prescription Fraud
    - Doctor Shopping or impersonating medical staff
    - Forging prescriptions or altering prescriptions
  - Selling/trading prescription or illicit drugs

Opioid Comparisons: Approx. Times to Withdrawal Effects

Drug	Half-Life (T ½) (approximate)	Estimated Clearance (5 half-lives)
Heroin (diacetylmorphine)→ 6-monoacetylmorphine (6-MAM) → morphine	Injected: (H) ~2-6 minutes (6-MAM) ~2.5-5.5 hrs. (Morphine) ~1.5-7 hrs. http://www.nhtsa.gov/people/injury/research/job185drugs/morphine.htm Smoked: 3.3/5.4/18.8 min. *http://www.ncbi.nlm.nih.gov/pubmed/7823539ns*	~10-30 minutes ~12-27 hrs. ~8-35 hrs. ~16-94 minutes
*Hydrocodone (Vicodin, Norco)	~8 hours	~40 hours
*Oxycodone IR (Percocet, oxycodone)	~2-4 hours	~10-20 hours
*Oxycodone ER (Oxycontin)	~5 hours	~20 hours
*Morphine (IR, MS Contin)	IR: ~ 2-4 hours ER: ~ 11-13 hours	IR: ~10-20 hours ER: ~55-65 hours
*Methadone	~9-87 hours	~45-435 hours/(2-18 days)
*Bupenorphine (Suboxone/Subutex)	~16-39	~80-195 hours/(3-8 days)

* Information adapted from UpToDate/Lexicomp®

Abstinence vs. Maintenence

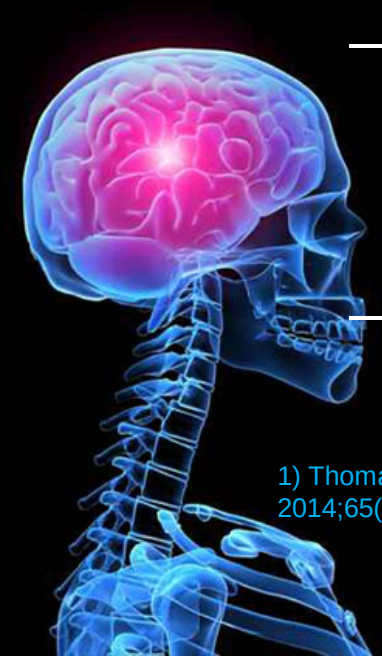
- **Opioid *Abstinence***
  - Naltrexone
  - Antagonist: completely blocks opioids at the mu receptor
    - inhibits opiate effects and decreases/eliminates physical cravings
    - prevents relapse when taken daily (orally) or every 21-28 days (injection)

- **Opioid *Maintenance***
  - Buprenorphine
  - Methadone
  - Opioid partial or full agonists
    - Designed for induction, stabilization, and long term maintenance therapy
    - Continued stimulation of the meso-limbic center ‘addiction’ pathways

Medically Assisted Treatment (MAT)

- The goals of treatment for opioid dependence include a decrease in illicit opioid use, decreased mortality, and reductions in criminal activity.[1]

- Three main categories:
  - Opioid Agonist
    - Methadone
  - Mixed Opioid Partial Agonist/Antagonist
    - Buprenorphine (Subutex®)
    - Buprenorphine/naloxone (Suboxone®)
  - Opioid Antagonist
    - Naltrexone (Revia®, Vivitrol®)



1) Thomas CP, Fullerton CA, Kim M, et al. Medication-assisted treatment with buprenorphine: assessing the evidence. *Psychiatr Serv*. 2014;65(2):158-170.

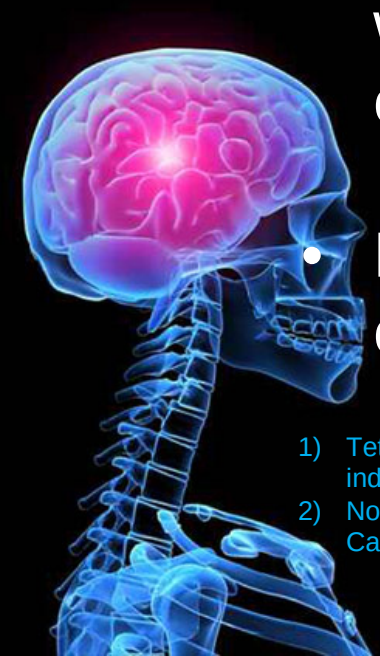
MAT: Methadone

- Federal law restricts dispensing of methadone to Federal and State approved opioid treatment programs (OTPs)
- OTPs are licensed and accredited opioid agonist treatment programs
  - Dispense methadone according to highly structured protocols as determined by the Federal and State Government including
    - U.S. DHHS
    - U.S. DEA
    - Various State Agencies
- Medical providers and pharmacies are prohibited to prescribe and dispense methadone for opioid dependence
  - Treatment for pain management indications only is authorized outside of OTPs

http://cepac.icer-review.org/wp-content/uploads/2014/04/CEPAC-Opioid-Dependence-Final-Report-For-Posting-July-211.pdf

MAT: Methadone

- Used in treatment of opioid dependence for almost 50 years[1]
- Full opioid agonist binds to cells in the brain and fully activates receptors[2]
- Used for induction therapy (initial management of withdrawal symptoms to help wean patients from illicit opioid use) or for maintenance treatment[2]
- Risk of abuse and overdose are substantial challenges with methadone treatment[2]



1) Tetrault JM, Fiellin DA. Current and potential pharmacological treatment options for maintenance therapy in opioid-dependent individuals. *Drugs*. 2012;72(2):217-228.
2) Nosyk B, Anglin MD, Brissette S, et al. A call for evidence-based medical treatment of opioid dependence in the United States and Canada. *Health Aff (Millwood)*. 2013;32(8):1462-1469.

MAT: Methadone

- Pharmacokinetics:
  - $T_{1/2}$- 8-59 hours
  - Chronic use: may be retained in the liver and then slowly released, prolonging the duration of action despite low concentration levels

- Can cause serious cardiac conduction effects, including prolonged QT interval and Torsades de Pointes

- Exercise caution in dosing frequency and titration
  - Risk of unintentional overdose at prescribed doses

http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm142841.htm

MAT: Buprenorphine and Buprenorphine/naloxone

- Office based opioid replacement therapy with buprenorphine or buprenorphine/naloxone is also restricted by Federal and State Regulations

- Federal Drug Addiction Treatment Act (DATA) of 2000 allows qualified physicians to obtain a waiver (known as an “X” license) to prescribe and/or dispense after receiving special training.
  - Initial waiver restricts treatment to 30 patient concurrently
  - After 1 year, a second waiver may be obtained to increase to a 100 patient at one time maximum

http://cepac.icer-review.org/wp-content/uploads/2014/04/CEPAC-Opioid-Dependence-Final-Report-For-Posting-July-211.pdf

MAT: Buprenorphine and Buprenorphine/naloxone

- *Comprehensive Addiction and Recovery Act (CARA): signed on June 22, 2016*
  - Expanded availability of naloxone
  - Prescription Drug Monitoring Program enhancements
  - Treatment for incarcerated people suffering from addiction
  - Allows Nurse Practitioners and Physician Assistants to prescribe buprenorphine for OBT
  - Increases patient limits from 100 to 275 after one year

1) https://www.samhsa.gov/medication-assisted-treatment/buprenorphine-waiver-management/increase-patient-limits
2) https://www.asam.org/quality-practice/practice-resources/nurse-practitioners-and-physician-assistants-prescribing-buprenorphine
3) https://www.govtrack.us/congress/bills/114/s524

MAT: Buprenorphine and Buprenorphine/naloxone

- Buprenorphine is a partial opioid agonist/antagonist

- Combination Buprenorphine/naloxone
  - 4:1 ratio
  - Naloxone deters diversion and abuse
    - Poor absorption into the body but causes withdrawal symptoms when injected intravenously

- Activates opioid receptors similar to methadone, but activity is diminished as a partial agonist
  - ‘ceiling effect’ limits efficacy at high doses

http://cepac.icer-review.org/wp-content/uploads/2014/04/CEPAC-Opioid-Dependence-Final-Report-For-Posting-July-211.pdf

MAT: Buprenorphine and Buprenorphine/naloxone

- May be used for induction therapy as well as maintenance treatment

- Pharmacokinetics
  - $T_{1/2}$- 3-44 hours
  - Sublingual (SL) administration due to extensive first pass effect leading to low bioavailability in oral (PO) form

- Target maintenance dose is 16mg/4mg
  - Doses higher than 24mg/6mg have not been demonstrated to provide clinical advantage

http://www.ncbi.nlm.nih.gov/pubmed/15966752

Clinical Pearls and Considerations: Methadone & Buprenorphine

- Methadone and Buprenorphine require special lab tests
  - Will not be detected on a standard urine toxicology screen as an opiate
- Very long half-life of each agent complicate induction and taper to abstinence treatment plans
  - Delayed and prolonged opioid withdrawal syndromes
- Diversion potential
  - High risk for selling or trading for illicit drugs

MAT: Naltrexone

- Complete opioid antagonist
  - Producing blockade at receptors in the brain and preventing euphoria from opioid use
  - Synthetic congener of oxymorphone with ***no agonist properties***

- Oral formulation (Revia®)
  - Once daily dosing
  - ADE's: GI adverse effects
  - Contraindicated: hepatotoxicity (black box warning)

- Long-acting injectable formulation (Vivitrol®)
  - 380mg once a month (every 28 days) intramuscular dorsogluteal injection
  - Most common adverse effect is local injection site reaction
  - Caution in hepatic impairment- *NO Black Box warning*
    - *Route of administration bypasses first pass effect*

- Must be opioid free (indicated by absence of opioids on urine toxicology results)
  - Precipitation of immediate and intense opioid withdrawal if not detoxed
  - Appears severe but is not life threatening

http://www.accessdata.fda.gov/drugsatfda_docs/label/2010/021897s005s010lbl.pdf
http://dailymed.nlm.nih.gov/dailymed/lookup.cfm?setid=0d929bf5-2eaa-4679-8334-1ac159b2b55c

MAT: Naltrexone

- Pharmacokinetics:
  - Oral formulation $T_{1/2}$- 4 hours (naltrexone) and 13 hours (6-β-naltrexol; active metabolite)
    - Caution in renal impairment due to primary metabolite excreted in the urine
  - Injectable formulation: concentrations slowly decline after 14 days post administration
    - Completely cleared within 33 to 35 days post injection

http://www.accessdata.fda.gov/drugsatfda_docs/label/2010/021897s005s010lbl.pdf
http://dailymed.nlm.nih.gov/dailymed/lookup.cfm?setid=0d929bf5-2eaa-4679-8334-1ac159b2b55c

MAT: Naltrexone Clinical Observations

- Anecdotal observations and patient reports:
  - Significant *reduction and elimination of cravings* from first dose for both oral and injectable formulations
  - Waning after 3 weeks after injection may cause return of cravings
    - Mitigation strategies: bridge with oral daily therapy x 1 week or inject earlier than 28 days
  - Inpatient detox vs. Outpatient Detox
    - Inpatient detox services are limited
      - Not a medical emergency- often discharged from ER same day
      - Funding limitations
    - Outpatient detox feasible but challenging
      - Refer to Ho-Chunk Nation Primary Care Evidence Based Addiction Withdrawal Supportive Care Treatment Protocol (see handout)

Comprehensive Integrated Treatment Plan- Holistic Approach

- All forms of MAT ***must*** be paired with ***mandatory*** Alcohol and Other Drugs of Abuse (AODA) and/or Mental Health psychotherapy for effective outcomes
  - Medications are tools to assist the individual achieve sobriety and recovery
- Consider recommending social support groups or 12 step programs such as NA and AA
  - *Caution*: some groups and philosophies may be harmful to recovery and contribute to risk of relapse
  - Recommend non-addiction social groups: *i.e.* meetup.com
    - Groups of people with shared interests in local communities
- Referrals to social services when appropriate to assist with social elements of recovery such as employment and education assistance.
- Incorporate ***spirituality***, personal belief systems, and other tailored methods.

General Concepts

- Get comfortable with thinking outside the box
  - May need to incorporate parole officers or family members into the treatment plan
- Integrated collaboration is essential
  - Addiction requires an integrated multi-disciplinary team patient centered care approach for successful outcomes
  - Peer recovery coaches/specialists are a critical component for sustained abstinence and recovery
- Case management
  - Medical and Behavioral Health (AODA and Mental Health) professionals need to communicate routinely and share minimum essential information
    - Releases of information and consent forms
      - HIPPA and CFR 42 guiding Federal Laws

Potential Limitations

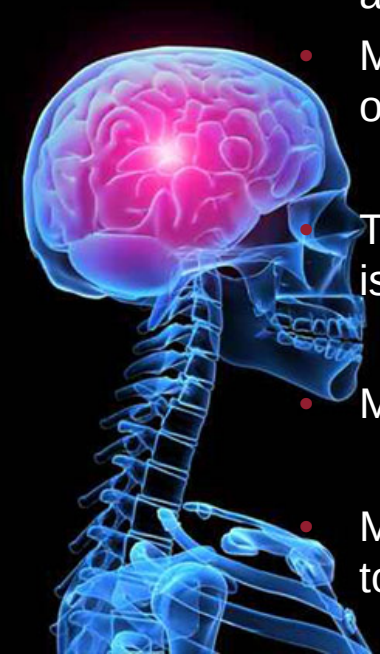
- Federal Regulation Restrictions
    - Methadone and Buprenorphine
        - DEA DATA X Waiver Training
- Diversion and Misuse
- Provider/Prescriber Cooperation/"Buy-in"
- Medication Costs
- Integrated services implementation obstacles
    - MAT requires comprehensive coordinated care
- "Controversial" (common beliefs and stigma)
    - Replacing one addiction with another
    - Many MAT medications are "addictive" drugs themselves
    - Argument that society and medical profession are in effect endorsing long-term addiction by placing individuals on MAT indefinitely
    - Individuals in MAT can still relapse

Stigma

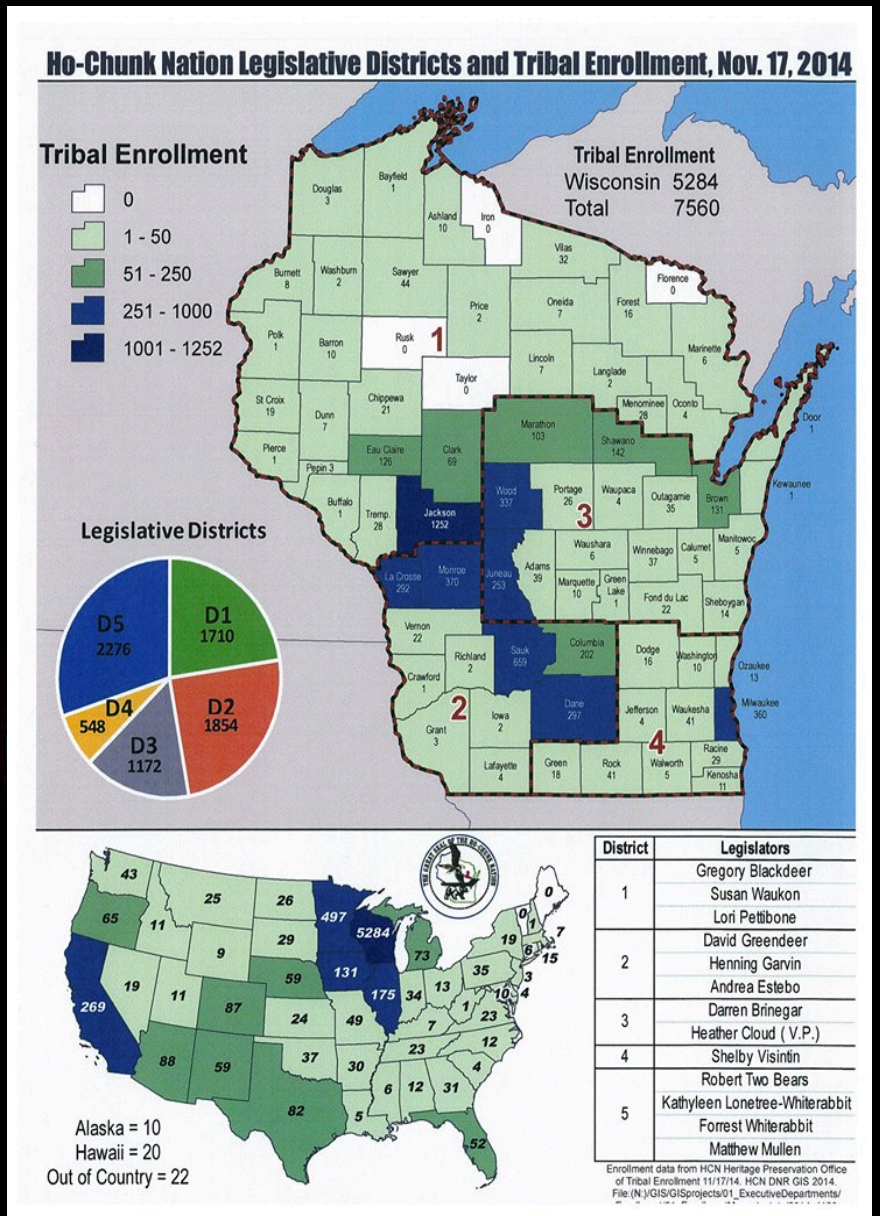
- Language Matters!
- *Changing Federal Terminology Regarding Substance Use and Substance Use Disorders Memo* from Office of the White House/Office of National Drug Control Policy Director Michael Botticelli January 2017[1]
    - *"Changing the Language of Addiction Memo"*- mandate to use non-stigmatizing language for substance use; using Substance Use Disorder (SUD) in place of 'addiction'.
    - Research has shown:
        - People with SUD are viewed more negatively than people with physical or psychiatric disabilities
        - Even highly trained substance use disorder and mental health clinicians significantly more likely to assign blame and believe individuals should be subjected to punitive rather than therapeutic measures when case vignette was referred to "substance abuser" rather than "person with a substance use disorder".

Importance of MAT Programs for Patients with SUD

- MAT leads to a smoother transition to a drug-free lifestyle in the early stages of recovery.
- MAT can minimize withdrawal symptoms. These symptoms are associated with higher relapse rates.
- MAT can help control cravings, which are also associated with relapse.
- The treatment program and treatment team can include multiple areas of expertise and input into the treatment process.
- MAT focuses on developing skills for long-term recovery as opposed to focusing on withdrawal and detox symptoms.
- The person in MAT has a lower potential for relapse-related illnesses, legal issues, relationship issues and other social issues.
- MAT has solid empirical evidence that supports its use
- MAT provides an opportunity for individuals to regain physiological control in order to work towards sustained recovery and improved quality of life.



HCN MAT Journey



- **Locations:** Black River Falls and Baraboo, WI
- **Tribe:** Ho-Chunk Nation (HCN)
  - *Hochungra* - The People with the Big Voice
- **Size:** App. 8,000 Enrolled Members
- **Description:** The Ho-Chunk Nation is a Sovereign Nation that owns land in 14 WI counties and IL (no single reservation). The HCN Health Department operates 2 Ambulatory Care Clinics and 4 Satellite Health Offices. Legislative Districts include 4 Districts in WI and District 5 consisting of everywhere outside of WI (in and out of country).

HCN MAT Journey- Extended Release Naltrexone

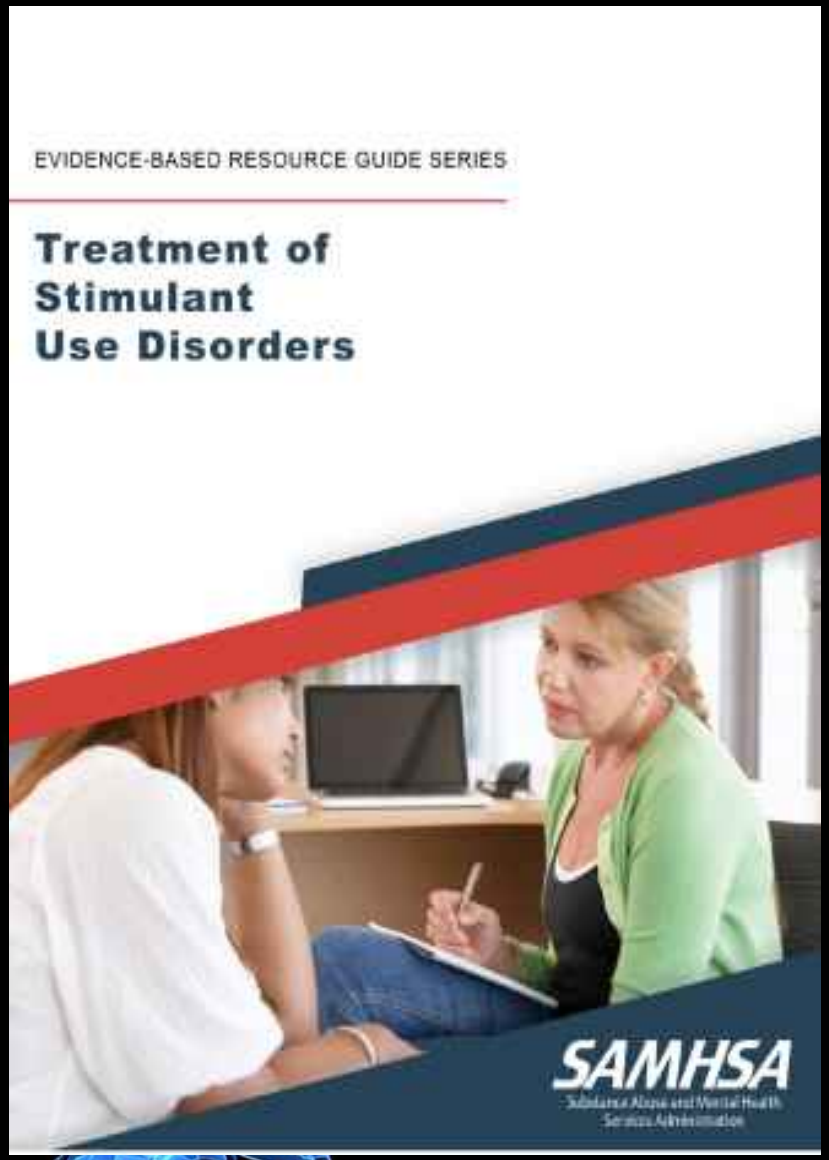
- 10/13/2006- Extended Release Naltrexone (Vivitrol) Injection FDA approved for AUD
  - Ho-Chunk Nation added to formulary
- 2009- HCN implements initial Vivitrol Protocol
- 04/14/2010- FDA approval for addition of opioid dependence relapse prevention indication

HCN MAT Journey- Extended Release Naltrexone

- **2014- Formalized the Medication Assisted Treatment Program (MAT) for Alcohol Use Disorder (AUD) and Opioid Use Disorder (OUD)**
  - **CPA Pharmacist developed and implemented**
  - **Key Components:**
    - **Long-acting injection and oral naltrexone**
    - **Outpatient Withdrawal Supportive Care Treatment Protocol**
    - **Psycho-education about SUD as complex bio-psycho-social chronic brain disorder**
    - **Individual must engage in behavioral health services**
    - **Primary Care/Behavioral Health Integration**

- **2019- Formalized protocol into policy/procedure.**

HCN MAT Journey- Methamphetamine Use Disorder Management



- "Everybody is using everything"- polysubstance use
- No FDA approved medications
  - HCN strategy: off-label use of Extended-release naltrexone ***plus*** acamprosate
  - Target symptom management- 2nd generation antipsychotics for psychosis symptoms (chronic), antidepressants and anxiolytics, etc.
  - SAMHSA Treatment of Stimulant Use Disorders Evidence Based Guidebook.
    - Non-pharmacological interventions

https://store.samhsa.gov/product/Treatment-of-Stimulant-Use-Disorder/PEP20-06-01-001

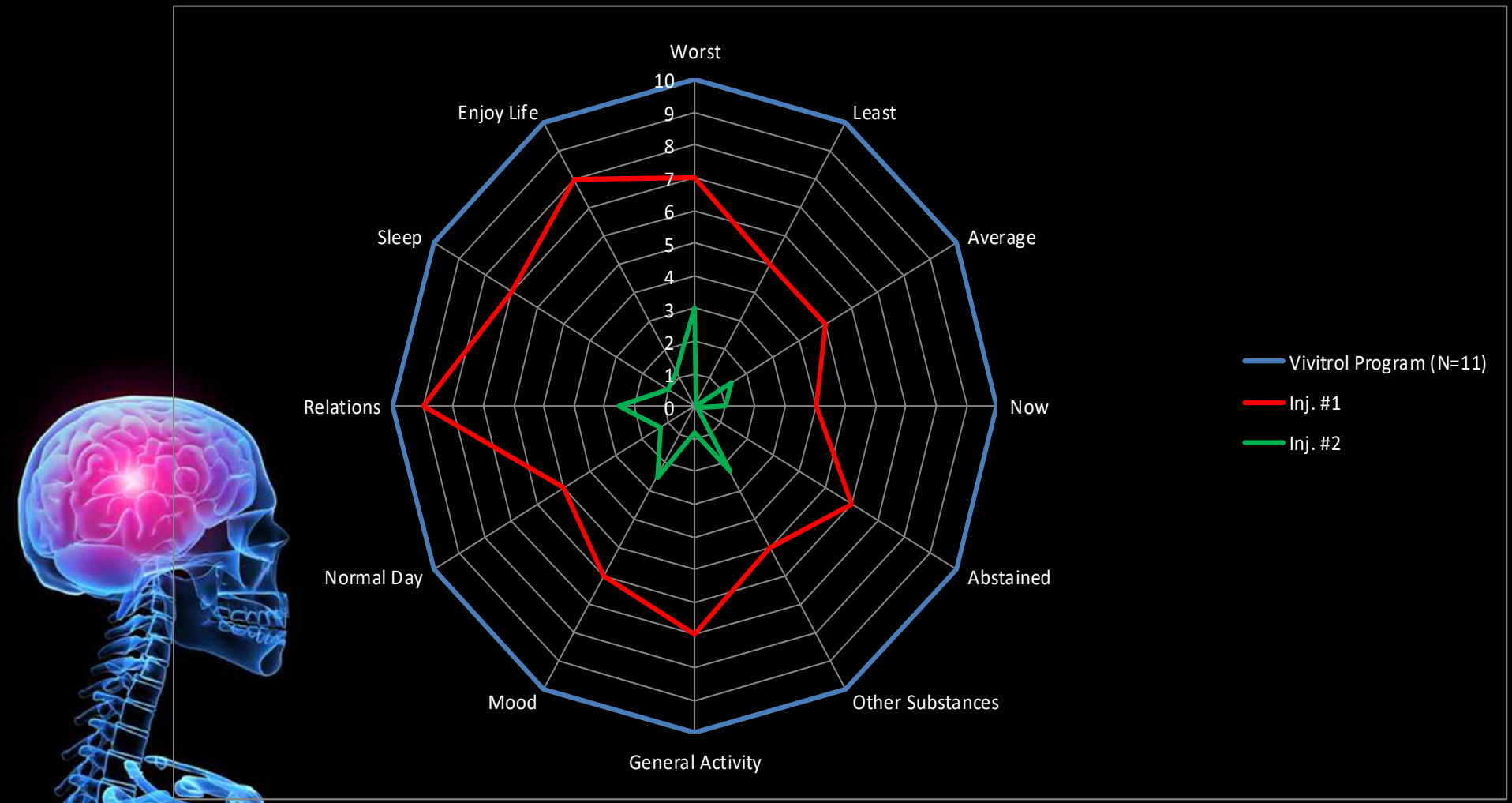
HCN MAT Program Outcomes

- **2017 Wisconsin Society of Addiction Medicine Conference Prese**
- OUD Inventory: subjective 10 point Likert scale measurement of cravings and quality of life domains
- Measures the perceived interference of opioid addiction over the previous month
- Questions #7 through #12 are adapted from evidenced based pain measurement tool
  - *Brief Pain Inventory (Short Form)* by Charles S. Cleeland, PhD, Pain Research Group.
  - Demonstrates both *reliability and validity* across cultures and languages.[1]

1) Pain assessment: global use of the Brief Pain Inventory. Ann Acad Med Singapore. 1994 Mar; 23(2): 129-138

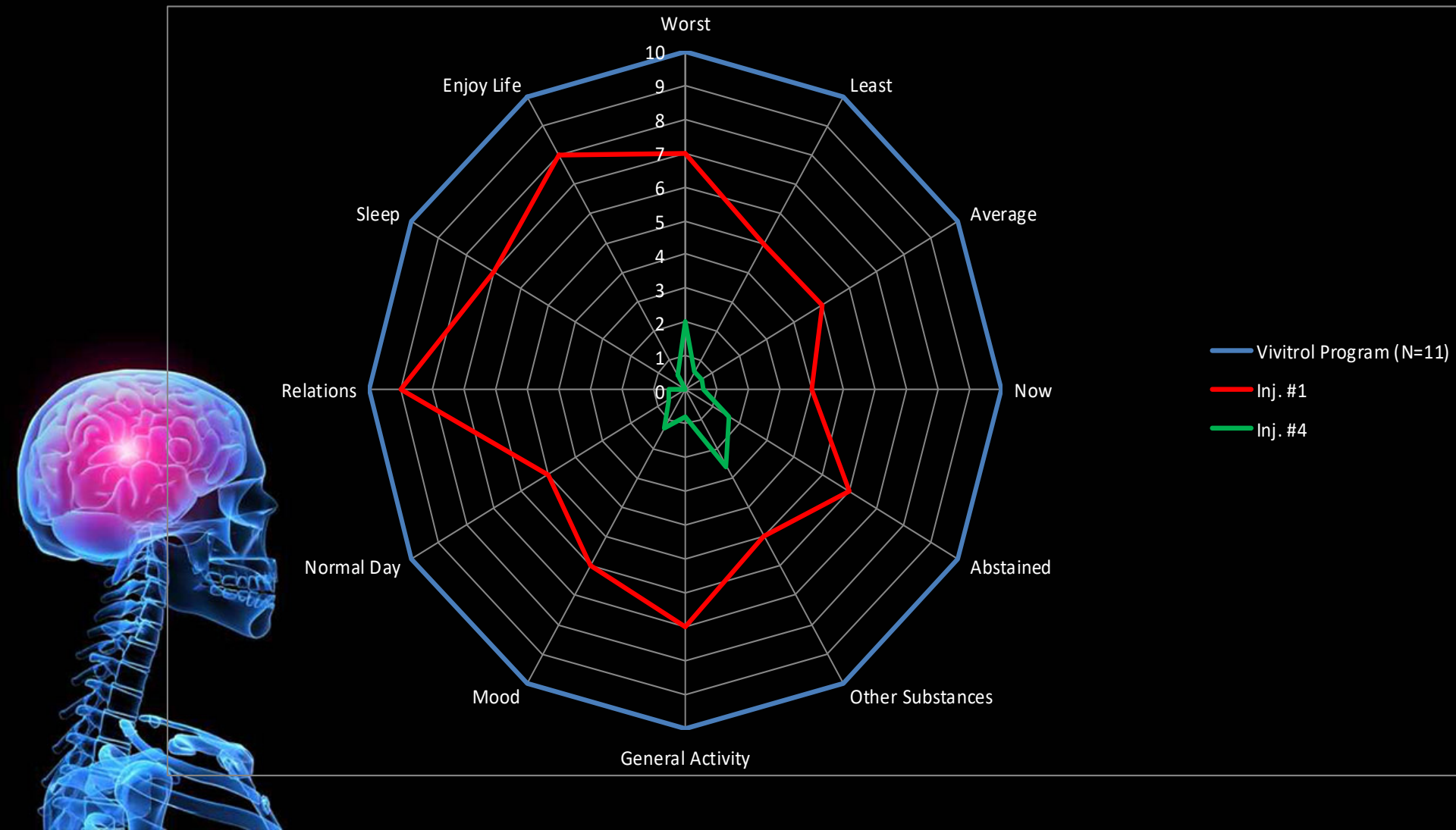
HCN MAT Program Outcomes

Cravings and QOL Measures: Injection #1 to #2 (n=11)



HCN MAT Program Outcomes

Cravings and QOL Measures: Injection #1 to #4 (n=11)



Evidence Based Model

- SBIRT- Screening, Brief Intervention, and Referral to Treatment (SAMHSA)
  - Evidence-based practice use to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and illicit drugs
    - Primary care setting tool
    - Free on-line course available through Medscape
  - Similar to referring a patient with diabetes requiring dialysis to nephrology or podiatry for foot care.

1) http://www.integration.samhsa.gov/clinical-practice/SBIRT
2) http://www.samhsa.gov/sbirt

Motivational Interviwing

- Key Elements
  - *MI Spirit*: collaboration, evocation, autonomy
  - *Change Talk*: client's statements that indicate an inclination or a reason for change
  - *Sustain Talk*: client's reasons *NOT* to make a change or to sustain the status quo.
  - *Resistance*: client's resistance may be a result of the client-practitioner relationship that lacks agreement, collaboration, empathy, or client autonomy.

http://www.motivationalinterview.net/miglossary.pdf

Motivational Interviewing

- **Four Principles**
  - Express empathy: practitioner making a genuine effort to understand the client's perspective and equally genuine effort to convey understanding to the client
  - Develop discrepancy: listen for or employ strategies that facilitate the client's identification of discrepant elements of a particular behavior or situation.
  - Roll with resistance/avoid argumentation: practitioner's ability to side step or diminish resistance and proceed to connect with the client and move in the same direction
  - Support self-efficacy: practitioner's ability to support the client's hopefulness that change or improvement is possible.

http://www.motivationalinterview.net/miglossary.pdf

Motivational Interviewing

- **Five Strategies**
  - Open ended questions: facilitate a client's response to questions from his/her own perspective and from the area(s) deemed important or relevant.
  - Affirm: actively listen for the client's strengths, values, aspirations, and positive qualities and reflect those to the client in an affirming manner. Reframe negative perspectives to positive.
  - Reflective listening: entails a skillful manner of responding to what the client says.
  - Summarizing: sessions are ended with a strategic, collaborative summary.
  - OARS: acronym for the preceding strategies to assist practitioners to use these interventions routinely in practice.
  - Elicit change talk-self motivational statements: examples include evocative open ended questions or looking ahead exercises

http://www.motivationalinterview.net/miglossary.pdf

Motivation for Recovery

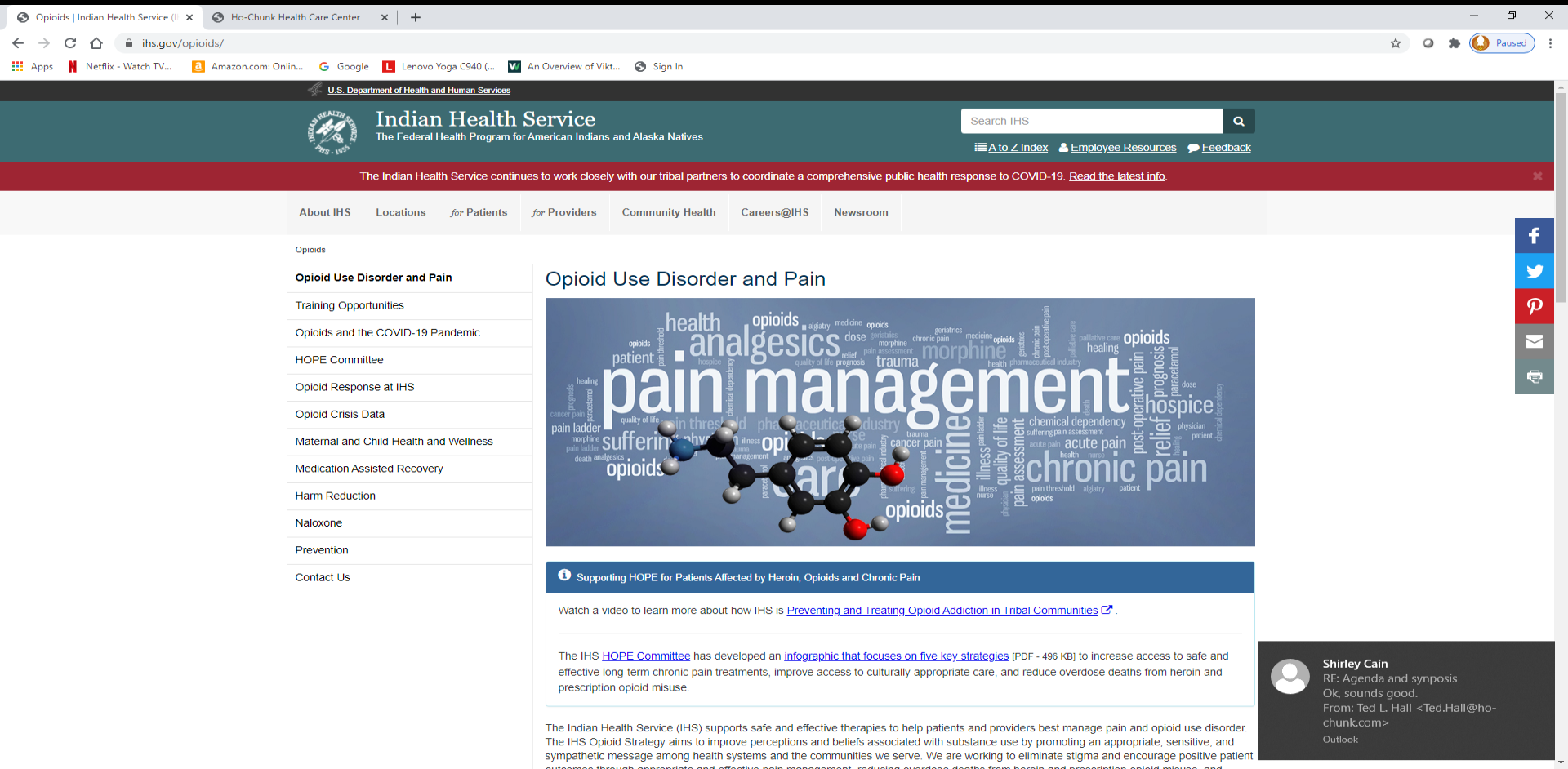
- Motivational Interviewing Applied
  - Assess: sincerely listen to their story; you may be the first to display empathy, respect, and hope to them in a very long time
  - Elicit: focus on and reflect back the individual's strengths, values, and goals to inspire change or reinforce the decision for change
  - Enhance: using your knowledge and skills to genuinely assist will significantly improve outcomes and possibility for recovery

Clinical Case Management

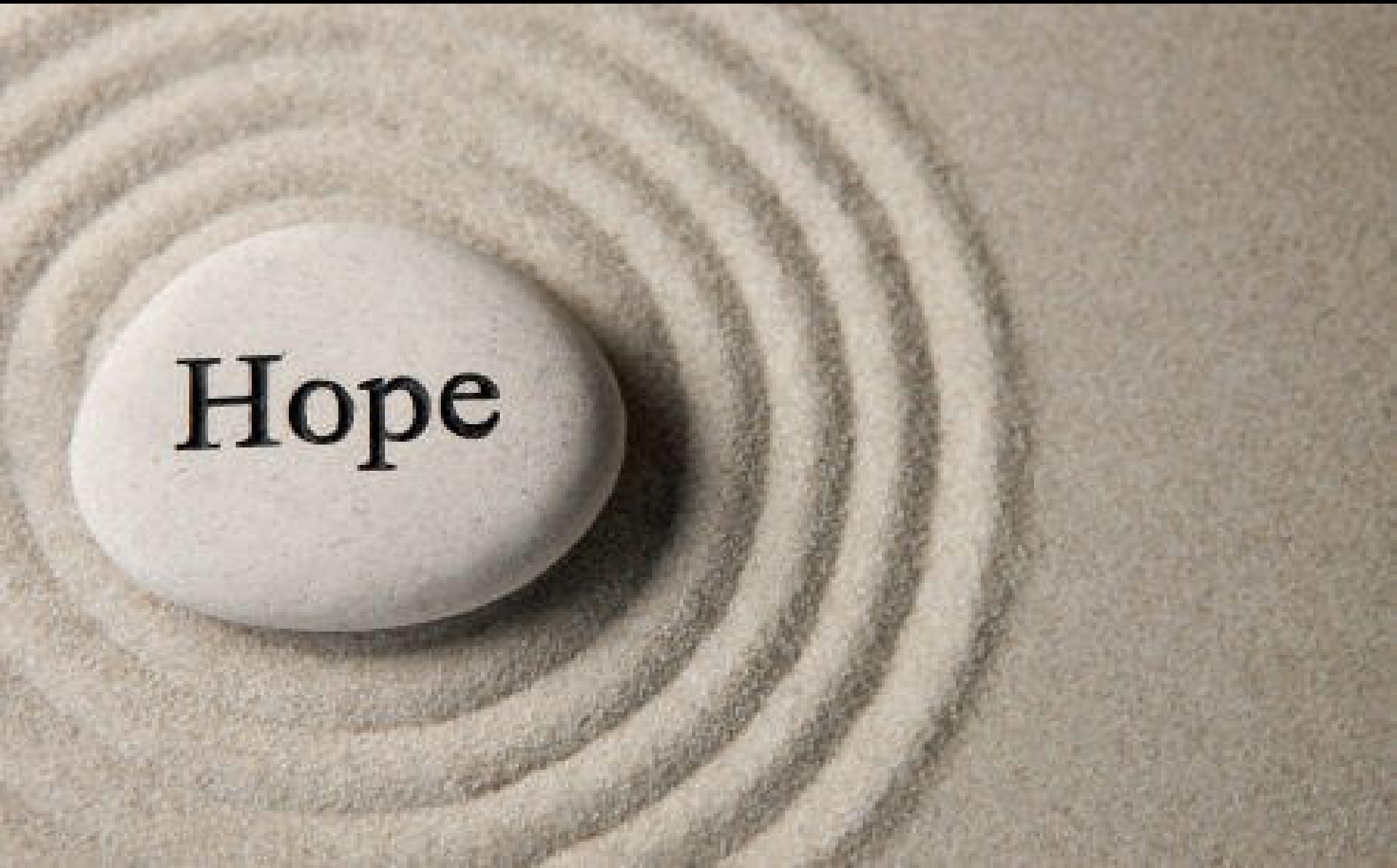
- Integrated patient-centered approach
  - Pharmacists/Nurses/Social Workers are essential members of a multi-disciplinary team
    - Best patient advocates
      - Access to multiple professionals and services.
      - Knowledge of health systems- maneuverability
      - Pharmacist: Subject matter experts in pharmacology
      - Nurse: patient advocates trained/experienced in clinical case management
      - Clinical knowledge and skills (all)
      - Availability and accessibility
      - Adept in chronic condition management
        - » Addiction is a complicated bio-psycho-social primary chronic condition of the brain requiring a medical, behavioral health, social, and community response and involvement
        - » Pharmacists/Nurses/Social Workers are the 'bridge'

Resources:

Indian Health Service Website: https://www.ihs.gov/opioids/

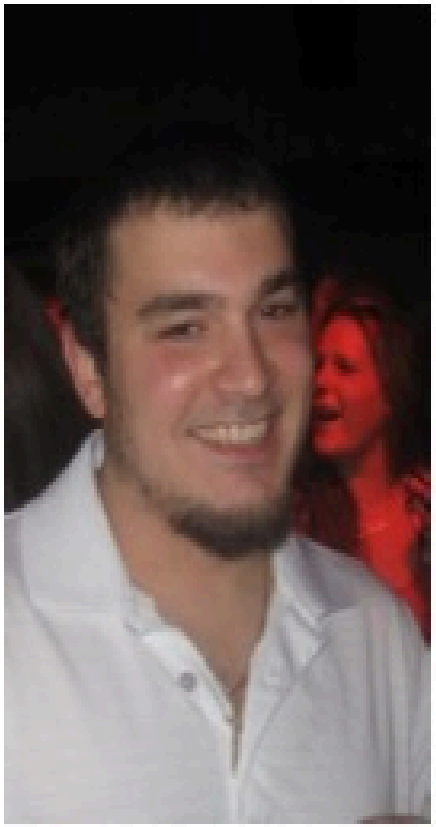


Always….



Richard Cogoni

November 12, 1985 - October 15, 2015



Born: November 12, 1985
Death: October 15, 2015

Richard Cogoni of Parsons passed away Thursday October 15, 2015. He was born November 12, 1985 in Wilkes Barre, the son of the late Roseanne Hall and the late Robert Fetterman. He was raised by his loving aunt, Joanne Meshanski, with whom he resided and by his beloved grandmother, the late Lucille Meshanski. He attended Crestwood and Coughlin High Schools. Richard was beloved by his family and had many friends. He was a gifted poet and left many verses that will be cherished with his memory. In addition to his aunt, Richard is survived by his brothers

Dr. Ted Hall and James Fetterman, both of Baraboo, Wisconsin and his sister Michelle Hall and his nephew Austin Chivarella of Wilkes Barre. He is also survived by his aunt and uncle, Debbie and Joe Meshanski and his cousin Amanda, of Mount Pleasant and by his best friends Bryan Espinoza and Sherri Ann Garren.

Richards family will receive friends on Tuesday October 20th from 5 to 7pm at the E. Blake Collins Funeral Home, 159 George Avenue, Wilkes Barre. In lieu of flowers, contributions can be made to the family to help with Richard's final expenses.

Question and Answer Session:

Rat Park
https://www.youtube.com/watch?v=C8AHODc6phg

Contact Information

CAPT Ted L. Hall, PharmD, BCPP

S2845 White Eagle Road
Baraboo, WI 53913
(O) 608-355-1240 ext. 5582
(C) 608-301-5390
Ted.Hall@ho-chunk.com