OBJECTIVES

- To understand the neuroscience of prolonged opioid use
- To understand the similarities and differences with addiction
- To understand approaches to working with patients affected by chronic pain
- To participate in interactive breakout sessions
LOGISTICS

- Folders
  - Agenda
  - Presenter Biographies
  - PHC Contact List
  - Evaluation
  - PHC Website
  - NoRxAbuse Flyer
  - MPS County Webinar Flyer

- CME Logistics

- Q&A Process
HOUSEKEEPING

- Restroom Locations
- Electronic Devices
- WIFI Name: Red Lion Guest
- WIFI Code: Harley
- Presentation Materials Online

http://www.partnershipphp.org/Providers/HealthServices/Pages/MPSUpcomingEvents.aspx
Begin and end on time
Be open-minded – respect all ideas and opinions
Use technology sparingly and place on silent
  - If you must take a call, please step out of the room
Be engaged – participate

Have fun!!!
Conflict of Interest

- All presenters have signed a conflict of interest form and have declared that there is no conflict of interest and nothing to disclose for this presentation.
Let’s get started ...
ENJOY THE FORUM!
Managing Pain Safely: Progress on Reducing Opioid Overuse in the PHC Service Area

Robert Moore, MD, MPH
Medical Director,
Partnership HealthPlan of California

January 15, 2016
Managing Pain Safely – 2016 Update

Accomplishments
Progress towards goal
How we will achieve goal
Accomplishments:

Review of PHC Opioid Prescription Data
MPS Data – Total Prescriptions

52% Decrease
Jan 2014 – November 2015
The trends of Initial Rx P100MPM and Initial Rx P100MPM for fill_dt Month. The marks are labeled by Initial Rx P100MPM. For pane Initial Rx P100MPM: Color shows details about Region (copy) (group). For pane Initial Rx P100MPM (2): Color shows details about Region. The data is filtered on Initial and Date Filter. The Initial filter keeps Y. The Date Filter
The trends of % of Total Opioid users and % of Total Opioid users for Latest Fill Month broken down by User type. For pane % of Total Opioid users (2): Color shows details about Region. For pane % of Total Opioid users: Color shows details about Region (copy) (group). The data is filtered on Date Filter and Latest Fill. The Date Filter filter keeps True.
Percent Decrease of Unsafe Dose

% Decrease Unsafe Dose
December 2013-November 2015

Accomplishments:

Health Plan Activities
MPS Workgroups

MPS Technical Support

Data Management

Pharmacy

Provider Network

Care Coordination/Utilization Management/Member Services

Legislative Policy/Regulation/Communication

Community Support

MPS Steering Committee
Interventions

Education
Health plan pharmacy prior authorization changes
Additional options for treating pain
Community activation
Aligned incentives
Additional resources
Accomplishments:
Community Coalitions
PHC Counties Participating in CHCF Regional Opioid Safety Coalition Grant Program

10 PHC Counties are participating in CHCF’s Regional Opioid Safety Coalition Grant Program

- Regional Offices
  - Eureka
  - Fairfield
  - Redding
  - Santa Rosa

CHCF Opioid Safety Coalition County
Community Coalition Status

PHC COUNTY COALITION STATUS

Key

1  Little or No Effort (Yet)
2  Initial Meetings, Beginning of Framework Formation
3  Framework Formation, Action Teams Initiating
4  Strong Effort- Framework Implemented, Regular Meetings, Active Action Teams, Working towards Milestones
5  Robust Effort- Active Action Teams, Accomplishing Milestones, Measurable Results
Accomplishments:
Primary Care Providers
Interventions

Opioid Oversight Committees
Setting up Health Center-wide policies
Tapering
Integrated Behavioral Health
Talking to patients, one by one.
Progress Towards Goal
By December 31, 2016, we will improve the health of PHC members by ensuring that prescribed opioids are for appropriate indications, at safe doses, and in conjunction with other treatment modalities as measured by a:

- Decrease in total number of initial prescriptions by 75%
- Decrease in total number of prescription escalations by 90%
- Decrease in total number of patients on high-dose opioids* by 75%

*Defined as greater than 120 mg. MED
% Decrease Unsafe Dose January 2014-October 2015

- Del Norte: 47%
- Humboldt: 56%
- Lake: 53%
- Lassen: 47%
- Marin: 40%
- Mendo: 34%
- Modoc: 9%
- Napa: 27%
- Shasta: 34%
- Siskiyou: 44%
- Solano: 34%
- Sonoma: 37%
- Trinity: 66%
- Yolo: 27%

Rate of High Opioid Users: End of 2015

<table>
<thead>
<tr>
<th>Counties</th>
<th>Users per 10,000 Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>LASSEN</td>
<td>82</td>
</tr>
<tr>
<td>LAKE</td>
<td>73</td>
</tr>
<tr>
<td>TRINITY</td>
<td>73</td>
</tr>
<tr>
<td>SISKIYOU</td>
<td>67</td>
</tr>
<tr>
<td>MODOC</td>
<td>64</td>
</tr>
<tr>
<td>MENDOCINO</td>
<td>59</td>
</tr>
<tr>
<td>DEL NORTE</td>
<td>56</td>
</tr>
<tr>
<td>SHASTA</td>
<td>54</td>
</tr>
<tr>
<td>SONOMA</td>
<td>48</td>
</tr>
<tr>
<td>HUMBOLDT</td>
<td>44</td>
</tr>
<tr>
<td>MARIN</td>
<td>38</td>
</tr>
<tr>
<td>NAPA</td>
<td>24</td>
</tr>
<tr>
<td>SOLANO</td>
<td>24</td>
</tr>
<tr>
<td>YOLO</td>
<td>22</td>
</tr>
</tbody>
</table>
Achieving Our Goal: I
Health Plan Activities for 2016
Looking Ahead in 2016: Health Plan Activities

Provision of tele-consult services for complex patients on high-dose opioids

Education and coordination around addiction screening and treatment

Partner with CHCF for continued support in developing and sustaining local efforts targeted at reducing improper use of opioids

Planning process for creating integrated clinics for high utilizers

Pharmacy academic detailing

MPS provider level data sharing

Tapering guide/ toolkit

Naloxone Pilot
Achieving Our Goal: II

State Wide Activities
Looking Ahead in 2016: State Wide Activities

Support for Community Coalitions
Planning for Integrated Approach to Patients on High Doses of Chronic Opioids
CDC Guidelines
CURES 2.0
Achieving Our Goal: III

Prescriber Activities
Looking Ahead in 2016: Prescriber Activities

- Sign up for tele-consult services for complex patients on high-dose opioids
- Make local opioid oversight committees more robust
- Participate in regional coalitions
- Give feedback on draft plan for integrating chronic pain treatment with Medication Assisted Therapy
- Ask your PHC Regional Medical Director to meet with you and/or your clinicians to review their individual PHC opioid data and to review MPS
- Tapering guide/toolkit
- Distribute Naloxone and educate patients/families on how to use it.
Thank You!!!

Robert Moore, MD, MPH, Medical Director,
Partnership HealthPlan of California
Cory Waller, Medical Director Center for Integrated Medicine

*Spectrum Health Medical Group*
An Overview Of Substance Use Disorders
Partnership Health Plan

Sharone Abramowitz M.D.
Psychiatrist & Addiction Medicine Board Certified
Behavioral & Addiction Medicine Director, Primary Care Medicine Residency, Highland Hospital, Alameda Health System
Executive Council, Calif Society of Addiction Medicine
Motivational Interviewing Network of Trainers
Integrative Psychiatry Private Practice, Oakland & San Francisco
www.Abramowitz-Psychiatry.com
What we will cover ...

- Epidemiology
- Brain & Addiction
- DSM V
- Opiates
- Marijuana
- Alcohol
- Screening & Counseling
Pair off

Speakers
• Think of an impactful interaction you’ve had with one of your addiction pts (positive or negative)
  • Emotional impact, what did you learn?, what you need to learn?
• Speak for 90 seconds

Listeners
• Listen without speaking
• Your face will show natural responsiveness
• After time is called, you have 60 seconds to summarize in your own words the story you just heard.
Reverse

Summarizing
Empathy Exercise
“The wound is the place where the light enters you.”

Rumi
EPIDEMIOLOGY
Substances for Which Most Recent Treatment Was Received in the Past Year among Persons Aged 12 or Older: 2013

- Alcohol: 2,513
- Marijuana: 845
- Pain Relievers: 746
- Cocaine: 584
- Heroin: 526
- Stimulants: 461
- Tranquilizers: 376
- Hallucinogens: 303

Numbers in Thousands

NSDUH 2013
Substance Dependence or Abuse in the Past Year among Persons Aged 12 or Older: 2002-2013

NSDUH 2013
First Specific Drug Associated with Initiation of Illicit Drug Use among Past Year Illicit Drug Initiates Aged 12 or Older: 2013

- Marijuana (70.3%)
- Pain Relievers (12.5%)
- Inhalants (6.3%)
- Tranquilizers (5.2%)
- Stimulants (2.7%)
- Hallucinogens (2.6%)
- Sedatives (0.2%)
- Cocaine (0.1%)

2.8 Million Initiates of Illicit Drugs

NSDUH 2013
Substance Dependence or Abuse in the Past Year, by Age and Gender: 2013

![Bar chart showing the percentage of individuals aged 12 or older, aged 12 to 17, and aged 18 or older who had a substance dependence or abuse in the past year, by gender.]

NSDUH 2013
Current, Binge, and Heavy Alcohol Use among Persons Aged 12 or Older, by Race/Ethnicity: 2013

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percent Using in Past Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>57.7</td>
</tr>
<tr>
<td>Black or African American</td>
<td>43.6</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>37.3</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>38.4</td>
</tr>
<tr>
<td>Asian</td>
<td>47.4</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>43.0</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>47.4</td>
</tr>
</tbody>
</table>

Current Use (Not Binge)  Binge Use (Not Heavy)  Heavy Alcohol Use

NSDUH 2013
THE BRAIN & ADDICTION

SUDs as a Chronic Brain-Based Disease
Epigenetics & SUDs
Adverse Childhood Events (ACE)

CDC & Kaiser San Diego Study

http://www.cdc.gov/violenceprevention/acestudy/
4 or more categories of ACEs, compared to those w/ none:
• 4-12-fold risks for alcoholism, drug abuse, depression, and suicide attempt
• 2- 4-fold increase in smoking, poor self-rated health
• 1.4- 1.6-fold increase in physical inactivity and severe obesity

• # of ACEs showed a graded relationship to the presence of adult diseases including: ischemic heart disease, cancer, chronic lung disease, skeletal fractures, and liver disease.


Useful to ask all pts:
“Have you ever been harmed physically, sexually, emotionally as a child or an adult?”
We admitted we were powerless over drugs – that our lives had become unmanageable.
Dopamine

Sex, food, drugs, social connections
VTA (mesolimbic)

Pleasure, reward, socializing
Addiction *
Psychosis *

Pain processing
PNS & CNS pain system

Chronic pain *

Movement
Substantia Niagra

Parkinson's disease

Executive Function
PFC

ADHD *

Inhibits PRL
hypothalamus

Stop lactating
Effects of Drugs on Dopamine Release

Amphetamine

- Accumbens
- % of Basal Release
- DA, DOPAC, HVA
- Time After Drug: 0, 1, 2, 3, 4, 5 hr

Cocaine

- Accumbens
- % of Basal Release
- DA, DOPAC, HVA
- Time After Drug: 0, 1, 2, 3, 4, 5 hr

Nicotine

- Accumbens, Caudate
- % of Basal Release
- Time After Drug: 0, 1, 2, 3 hr

Morphine

- Accumbens
- % of Basal Release
- Dose: 0.5 mg/kg, 1.0 mg/kg, 2.5 mg/kg, 10 mg/kg
- Time After Drug: 0, 1, 2, 3, 4, 5 hr

Di Chiara and Imperato, PNAS, 1988
Dr. Nora Volkow on Addiction: A Disease of Free Will, July 2015
www.youtube.com/watch?v=X1AEvkWxbLE
3 Stages of the Addiction Cycle

G. Koob, The Potential of Neuroscience to Inform Treatment, NIAAA
DSM 5 CRITERIA

Alcohol Use Disorder
DSM 5: Alcohol/Drug Use Disorder

Addiction pathway in brain is triggered

Spectrum Disorder

Severe:
≥ 6 addicted, requires abstinence & on-going recovery

Moderate: 4-5
more likely will require abstinence & on-going recovery, but may be able to reduce use

Mild: 2-3
problem use, not necessarily addicted, usually able to reduce to healthier use
Impaired Control (1-4)

Social Impairment (5-7)

Risky Use (8-9)

Pharmacological Criteria (10-11)

11 DSM 5 criteria
DSM 5: Alcohol Use Disorder Criteria

Within a 12-month period:
• Took more than intended
• Unsuccessful efforts to cut down
• Lots of time spent obtaining, using, or recovering
• Craving
• Failures to fulfill obligations at work, school, home
• Use despite social or interpersonal problems
• Giving up activities because of opioids
• Use when physically hazardous
• Use despite negative psych or physical impact
• Tolerance (not a criteria for opioids)
• Withdrawal (not a criteria for opioids)

• MILD: 2-3
• MODERATE: 4-5
• SEVERE: 6 or more
What are the 4 C’s of Addiction?

- Loss of Control
- Compulsive use
- Continued use despite harm
- Craving
Two Item Conjoint Screen: TICS
used in Screening Brief Intervention & Referral to Treatment (SBIRT)

- In the last year:
  - Have you ever drunk or used drugs, including prescription drugs, more than you meant to?
  - Have you felt you wanted or needed to cut down on your drinking or drug use, including prescription drugs?
  - 1 pos answer: 80% sensitivity/specificity
### Single Question Screen
(National Institute on Alcohol Abuse and Alcoholism, Variations Exist)

**Question:** How many times in the past year have you had X or more drinks in a day? (X is 5 for men, 4 for women.)

**Scoring:** One or more is considered a positive screen for alcohol misuse.

<table>
<thead>
<tr>
<th>Score</th>
<th>Sensitivity (95% CI)</th>
<th>Specificity (95% CI)</th>
<th>+LR</th>
<th>−LR</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥1</td>
<td>82% (73%–89%)</td>
<td>79% (73%–84%)</td>
<td>3.9</td>
<td>0.2</td>
</tr>
</tbody>
</table>

### AUDIT-C

**Question**

<table>
<thead>
<tr>
<th>Points</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How often do you have a drink containing alcohol?</td>
<td>Never</td>
<td>Monthly or less</td>
<td>2–4 times a month</td>
<td>2–3 times a week</td>
<td>4 or more times a week</td>
</tr>
<tr>
<td>2. How many drinks containing alcohol do you have on a typical day when you are drinking?</td>
<td>1 or 2</td>
<td>3 or 4</td>
<td>5 or 6</td>
<td>7–9</td>
<td>10 or more</td>
</tr>
<tr>
<td>3. How often do you have 6 or more drinks on one occasion?</td>
<td>Never</td>
<td>Less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
</tbody>
</table>

**Scoring:** Points from the 3 questions are summed for a total 0 to 12. A positive screen for alcohol misuse is usually considered ≥4 for men and ≥3 for women but may be adjusted for increased sensitivity or specificity. If patients answer never for the first question, scores of 0 can be entered for questions 2 and 3.

<table>
<thead>
<tr>
<th>Score</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>+LR (95% CI)</th>
<th>−LR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men ≥4</td>
<td>0.86</td>
<td>0.89</td>
<td>7.8 (5.5–11.1)</td>
<td>0.16 (0.1–0.2)</td>
</tr>
<tr>
<td>Women ≥3</td>
<td>0.73</td>
<td>0.91</td>
<td>7.9 (6.2–10)</td>
<td>0.29 (0.2–0.4)</td>
</tr>
</tbody>
</table>

The full AUDIT questions can be found at the World Health Organization. AUDIT, the alcohol use disorders identification test: guidelines for use in primary care. 2nd ed. Geneva, Switzerland: World Health Organization, Department of Mental Health and Substance Dependence; 2001.
The DAST-10 survey: These questions refer to the past 12 months. One point is awarded for each “Yes” answer.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes / No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you used drugs other than those required for medical reasons?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>2. Do you abuse more than one drug at a time?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>3. Are you unable to stop using drugs when you want to?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>4. Have you ever had blackouts or flashbacks as a result of drug use?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5. Do you ever feel bad or guilty about your drug use?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>6. Does your spouse (or parents) ever complain about your involvement with drugs?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>7. Have you neglected your family because of your use of drugs?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>8. Have you engaged in illegal activities in order to obtain drugs?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>10. Have you ever had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding)?</td>
<td>Yes / No</td>
</tr>
</tbody>
</table>
Treatment Effectiveness Assessment (TEA)

The TEA asks you to express the extent of changes for the better from your involvement in the program to this point (or how things are if it’s your first TEA or baseline) in four areas: substance use, health, lifestyle, and community. For each area, think about how things have become better and circle the results on the scale below: the more you have improved, the higher the number – from 1 (not better at all) to 10 (very much better). In each area write down the one or two changes most important to you in the Remarks section. Feel free to use the back of this page to add details, explain remarks, and make comments.

**Substance use:** How much better are you with drug and alcohol use? Consider the frequency and amount of use, money spent on drugs, amount of drug craving, time spent being loaded, being sick, in trouble and in other drug-using activities, etc.

<table>
<thead>
<tr>
<th>None or not much</th>
<th>Better</th>
<th>Much better</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

**Health:** Has your health improved? In what way and how much? Think about your physical and mental health: Are you eating and sleeping properly, exercising, taking care of health problems or dental problems, feeling better about yourself, etc?

<table>
<thead>
<tr>
<th>None or not much</th>
<th>Better</th>
<th>Much better</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>6</td>
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<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

**Lifestyle:** How much better are you in taking care of personal responsibilities? Think about your living conditions, family situation, employment, relationships: Are you paying your bills? Following through with your personal or professional commitments?

<table>
<thead>
<tr>
<th>None or not much</th>
<th>Better</th>
<th>Much better</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
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<td>6</td>
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<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

**Community:** Are you a better member of the community? Think about things like obeying laws and meeting your responsibilities to society: Do your actions have positive or negative impacts on other people?

<table>
<thead>
<tr>
<th>No or not much</th>
<th>Better</th>
<th>Much better</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>8</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:
PRESCRIPTION OPIATE SUD

#3 most abused substance in the U.S.
1 Month
Enough prescription painkillers were prescribed in 2010 to medicate every American adult around-the-clock for a month.

Rates of prescription painkiller sales, deaths and substance abuse treatment admissions (1999-2010)

Drug overdose was the leading cause of injury & death in 2012 for 25-64 yo. Drug overdose caused more deaths than motor vehicle traffic crashes.

Source Where Pain Relievers Were Obtained for Most Recent Nonmedical Use among Past Year Users Aged 12 or Older: 2012-2013

Source Where User Obtained

- More than One Doctor (2.6%)
- One Doctor (21.2%)
- Other\(^1\) (4.3%)
- Bought on Internet (0.1%)
- Drug Dealer/Stranger (4.3%)
- Bought/Took from Friend/Relative (14.6%)

Source Where Friend/Relative Obtained

- One Doctor (83.8%)
- More than One Doctor (3.3%)
- Free from Friend/Relative (5.1%)
- Bought/Took from Friend/Relative (4.9%)
- Drug Dealer/Relative (1.4%)
- Other\(^1\) (1.2%)
- Bought on Internet (0.3%)
She gets her hair from her mom. Her eyes from her dad. And her drugs from her grandma’s medicine cabinet.

70% of children who abuse prescription drugs get them from family or friends. Prevent your children from abusing your own medication by securing your meds in places your child cannot access.

BE AWARE. DON’T SHARE. For more information, go to www.lockyourmeds.org.

Tell pts w/ abusable prescription meds to lock them up!
35% of primary care pts have chronic non-cancer pain (CNCP)

opioids are the most commonly prescribed treatment


Are opioids the optimal treatment for CNCP?
• Weak evidence that pts w/ CNCP who continued on opioids long-term (> 6 months) experienced significant pain relief
  • But not clear if function or quality of life was improved
• Some evidence short-term efficacy (for both pain and function) of opioids to treat CLBP compared to placebo
• No placb-RCTs supporting the effectiveness and safety of long-term opioid therapy for treatment of CLBP

NO

Cochrane Reviews 2010 & 2013
Aberrant Medication-Taking Behaviors
A spectrum of patient behaviors that *may* reflect misuse

Adapted from Steve Passik. APS Resident Course, 2007
Chronic opioid therapy (COT) may worsen pain experience:

1. Tolerance
2. Intermittent withdrawal
3. Hyperalgesia

COWS Clinical Opioid withdrawal scale
Tolerance and Withdrawal (W/D)

- Normal for opiates, benzodiazepines, barbituates, others
- Reduction in response to a given dose after repeated administration
- Brain neuroadaptts to incoming drugs to maintain homeostasis
- Results in need for increasing doses to maintain equipotent analgesic effects
  - Koob, Le Moal Annu Rev Psychol 2008
• Tolerance may paradoxically activate a pro-nociceptive mechanism that counteracts opioid analgesia
  • Pain scores reported higher in COT pts than in matched pts without opioid treatment
• Pain sensitivity is increased in opioid SUDs and with methadone maintenance treatment

Hyperalgesia: Opioids May Worsen Pain
Other Opioid Side Effects

- Acetaminophen toxicity with combo
- Nausea and constipation
- Psychomotor compromise w/ increase risk of falls
- Methadone QT prolongation
- Increased sleep disturbances
- Mood impairment
- Decreased testosterone, estrogen, cortisol, others
- Hyosexuality
- Immuno-compromise due to NK cell impairment, etc.
- Drug interactions: ex. inhibit opioid metabolism
  - Pain Physician 2008
## Opioid Risk Tool (ORT): method to risk-stratify and deliver appropriate care

### Mark Each Box That Applies

<table>
<thead>
<tr>
<th>1. Family History of Substance Abuse</th>
<th>Score if Female</th>
<th>Score if Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Alcohol</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>□ Illegal Drugs</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>□ Prescription Drugs</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Personal History of Substance Abuse</th>
<th>Score if Female</th>
<th>Score if Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Alcohol</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>□ Illegal Drugs</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>□ Prescription Drugs</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Age (Mark Box if 16-45 years)</th>
<th>Score if Female</th>
<th>Score if Male</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. History of Preadolescence Sexual Abuse</th>
<th>Score if Female</th>
<th>Score if Male</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Psychological Disease</th>
<th>Score if Female</th>
<th>Score if Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Attention-Deficit/Hyperactivity Disorder</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>□ Obsessive Compulsive Disorder</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>□ Bipolar Disorder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Schizophrenia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Depression</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Total Score ________ Risk Category________

**Low Risk 0-3:** 6% chance of developing problematic behaviors

**Moderate Risk 4-7:** 28% chance ...

**High Risk >7:** >90% chance ...  

Approach to monitoring depends on risk level

**Low Risk:** follow up every 3 months, managed by PCP, routine CURES, urine drug screen, annual review of pain agreement

**Medium Risk:** Past history of SUD, but not actively addicted; PCP with consultant or review committee support, monthly visits, more frequent monitoring including pill counts

**High Risk:** Patient actively addicted/abusing; unstable major psychiatric disorder; should be in narcotic treatment program, or managed by PCP with buprenorphine and behavioral health treatment

- Adapted from Gourlay, et al 2005, 2009
What are the risk factors for prescription opioid induced SUD?

a. Personal hx of substance abuse
b. Hx of sexual abuse
c. Age less than 45
d. Hx of psychiatric illness
e. All of the above
Compared to CNCP pts without SUDs, CNCP pts with SUDs are:

a. Less likely to be treated with opioids
b. More likely to be treated with opioids
c. More likely to have restricted early refills
d. A & C
e. B & C

40.3% vs 26.2%
Behaviors May or May Not Be consistent with SUD?
R/o opioid misuse due to opioid adaptation or pain under treatment

- Express desperation over current sxs
  - Aggressively asks providers to provide more opiates
  - Repeated requests for early refills
  - Doctor shopping
- Uses more meds than prescribed
  - Hoards meds
  - Taken someone else’s meds
- Use MJ, smokes cigs, drinks to help with pain
- Resistant to integrated pain care
- Some adverse consequences related to use (family, work, health)
- Ever used opioids to treat other symptoms: rule out other psychiatric diagnoses
Loss of control of use and much adverse consequences related to use

- Frequent “lost prescriptions”
- Shows no concern about opioid side-effects or interest in integrative care approaches
- Preoccupation with obtaining prescription opioids for other than analgesia
  - R/o self-tx for untreated dual diagnosis
- Seen multiple providers w/o disclosure
  - Check CURES Physician Drug Monitoring Program (PDMP)
- Injecting oral medication
  - Check for skin signs
- Associated with illegal activities
  - Prescription theft and forgery
  - Stole drugs from other
  - Illegal buying
  - Prostitution to get drugs or money to buy drugs
  - Theft to get money to buy drugs


Behaviors Highly consistent with SUD
Best Evidence-Based Treatment for Opioid SUD

- Opiate Replacement Therapy (ORT)
  - Suboxone
  - Methadone
- Help families and pts to understand this
  - Compare to thyroid replacement therapy
- Why?
  - Likely chronic endogenous opioid deficiency
    - Need chronic opioid receptor occupation (other opiates don’t do this)
  - Acute WD can be managed
  - PAWS drives relapse
Post Acute WD Syndrome (PAWS): Opioids

- Anxiety/Depression
- Sleep disturbances
- Fatigue
- Dysphoria/Irritability
- Decreased ability to focus on a task
- Deficits in executive control
- Can mimic:
  - Mood disorder
  - Sleep disorder
  - ADHD
Past year initiation of heroin among individuals aged 12 or older, by age group: 2002 to 2013

NSDUH 2013
Naloxone Saves Lives
MARIJUANA

#2 most abused substance in the U.S.
Daily or Almost Daily Marijuana Use in the Past Year and Past Month among Persons Aged 12 or Older: 2002-2013

NSDUH 2013
Substances for Which Most Recent Treatment Was Received in the Past Year among Persons Aged 12 or Older: 2013

Numbers in Thousands

- Alcohol: 2,513
- Marijuana: 845
- Pain Relievers: 746
- Cocaine: 584
- Heroin: 526
- Stimulants: 461
- Tranquilizers: 376
- Hallucinogens: 303

NSDUH 2013
Endocannabinoids
neuromodulators scattered throughout the brain and spinal cord

CB1: in brain & spinal cord
CB2: in immune system

Intoxication Symptoms:
Euphoria, psychosis, impaired memory & cognition, reduced locomotor function, increased appetite, antiemetic, antispasticity, sleep-promoting, anti-anxiety, pain-relieving
Koppel, et al, Neurology 2014

Why we like ‘weed’ & not hay?

NIDA website
• MJ contains > 60 pharmacologically active cannabinoids
  • Primary cannabinoids in MJ
    • THC (tetrahydrocannabinol)
      • Euphoria
      • Psychosis
    • Cannabidiol
      • Not psychoactive
      • Possible anti-anxiety & anti-psychotic
  • **THC:Cannabidiol ratio** engineered to achieve desired effects
    • Pertwee, Br J Pharmacology 2006
    • Hill, JAMA 2015

Weed is Not Oregano
Neurotoxic Effect of MJ on Youth

• Dunedin prospective study: n=1037. Neuropsych testing done at 13 yo (before cannabis initiation) and again at age 38 yo (after persistent cannabis use, at least 4d/wk).
  • 8 point drop in IQ, even if quit in adulthood
  • Persistent use was associated with neuropsych decline broadly across domains of functioning, even after controlling for years of education
  • Persistent use interfered with everyday cognitive functioning
  • Among adolescent former persistent users, impairment was still evident after cessation of use for 1 y or more
  • Suggest a neurotoxic effect of cannabis on the adolescent brain and highlight the importance of prevention and policy efforts targeting adolescents
    • Meier et al, Proc Natl Acad Sci U S A. 2012
Cannabis Use Disorder Identification Test

- **CUDIT-R**
  - Scores of $\geq 13$ identify DSM-5 moderate and severe CUD
  - $\geq 13$ demonstrated significantly greater psychological distress and poorer physical and mental health functioning

- NIDA: Screening for DSM-5 cannabis dependence using the Cannabis Use Identification Test–Revised
- CUDIT-R: Adamson et al. Drug and Alcohol Dependence 2010

Cannabis Use Disorder Identification Test
Have you used any cannabis over the past six months?  YES / NO

If YES, please answer the following questions about your cannabis use. Circle the response that is most correct for you in relation to your cannabis use over the past six months.

1. How often do you use cannabis?

<table>
<thead>
<tr>
<th>Never</th>
<th>Monthly or less</th>
<th>2-4 times a month</th>
<th>2-3 times a week</th>
<th>4 or more times a week</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

2. How many hours were you “stoned” on a typical day when you had been using cannabis?

<table>
<thead>
<tr>
<th>Less than 1</th>
<th>1 or 2</th>
<th>3 or 4</th>
<th>5 or 6</th>
<th>7 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

3. How often during the past 6 months did you find that you were not able to stop using cannabis once you had started?

<table>
<thead>
<tr>
<th>Never</th>
<th>Less than monthly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or almost daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

4. How often during the past 6 months did you fail to do what was normally expected from you because of using cannabis?

<table>
<thead>
<tr>
<th>Never</th>
<th>Less than monthly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or almost daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

5. How often in the past 6 months have you devoted a great deal of your time to getting, using, or recovering from cannabis?

<table>
<thead>
<tr>
<th>Never</th>
<th>Less than monthly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or almost daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

6. How often in the past 6 months have you had a problem with your memory or concentration after using cannabis?

<table>
<thead>
<tr>
<th>Never</th>
<th>Less than monthly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or almost daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

7. How often do you use cannabis in situations that could be physically hazardous, such as driving, operating machinery, or caring for children:

<table>
<thead>
<tr>
<th>Never</th>
<th>Less than monthly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or almost daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

8. Have you ever thought about cutting down, or stopping, your use of cannabis?

<table>
<thead>
<tr>
<th>Never</th>
<th>Yes, but not in the past 6 months</th>
<th>Yes, during the past 6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

This scale is in the public domain and is free to use with appropriate citation:
Marijuana Withdrawal Symptoms

Mood:
• Irritability
• Anxious or worried
• Depressed
• Restless
• Insomnia and fatigue
• Low appetite or losing weight

Physical Symptoms:
• Stomach pain
• Sweatiness
• Shakiness
• Fever
• Chills
• Headache

• NIDA
Gabapentin Treatment for CUD

Treated with gabapentin in a pilot RCT DBP x 12 wks, tapered up to 300/300/600:

• Reduced use more
• Reported fewer symptoms of drug withdrawal
• Showed sig greater improvement in overall performance on tests of executive function
  • Mason et al. Neuropsychopharm 2012

Figure 1. Gabapentin Facilitates Abstinence
Patients who received gabapentin used less marijuana during treatment than did a comparison group that received placebo, according to both self-report and urinalysis.
OTC supplement N-acetylcysteine works via glutamate modulation in the nucleus accumbens

- RCT DBP x 8 wks CUD adolescents (ages 15-21 years; N=116) received NAC (1200 mg bid)
  - Included contingency rewards & brief counseling
  - Participants receiving NAC had more than twice the odds, compared with those receiving placebo, of having negative urine cannabinoid test results during treatment
  - NAC was well tolerated, with minimal adverse events
• References:
  • Hill, JAMA 2015
  • American Academy of Neurology, Neurology 2014

• FDA approved:
  • Dronabinol & nabilone
  • N/V due to cancer chemotherapy
  • Appetite stimulation in wasting illness

• Best RCT evidence for:
  • MS spasticity
  • Chronic pain
  • Neuropathic pain

MJ Medical Uses ?
BREAK
15 minutes
ALCOHOL

#1 most abused substance in the U.S.
Substances for Which Most Recent Treatment Was Received in the Past Year: 2013

- Alcohol: 2,513
- Marijuana: 845
- Pain Relievers: 746
- Cocaine: 584
- Heroin: 526
- Stimulants: 461
- Tranquilizers: 376
- Hallucinogens: 303
Alcohol Dependence or Abuse in the Past Year among Adults Aged 21 or Older, by Age at First Use of Alcohol: 2013

SAMHSA

- Alcohol Dependence

Percent Dependent or Abusing in Past Year

14.8

7.5

8.9

3.9

4.8

2.2

2.3

1.2
Current, Binge, and Heavy Alcohol Use: 2013
ETOH & Brain Reward Circuits

- **Dopamine system**
  - Indirectly increases DA in mesocorticolimbic system
  - Positively reinforces & rewards ETOH’s effects
  - Makes ETOH addictive

- **Opioid system**
  - Indirectly activates the opioid system
  - Reinforces the effects of mu-receptors
  - Creates a ‘buzz’ high

- **GABA system**
  - Increases GABA + inhibits glutamate: inhibitory system
  - Decreases anxiety, increases sedation
ETOH Biomarkers

R/O Denial

• Elevated MCV + GGT: 95% sensitive for abuse
  • GGT elevated 24 hrs to 2 wks after heavy ETOH use
    • Nml = 0-45 females, 0-53 males
  • Returns to nml within 2-6 wks of abstinence
  • Detects binge drinking

• AST:ALT ratio >2:1 = 90% chance of ALD

• Elevated GGT + AST:ALT >2:1 = 95% sensitive for abuse
SBIRT Screening

Alcohol Screening, Brief Intervention, and Referral to Treatment
SBIRT Treatment Outcomes

- At risk drinkers
  - Identified
  - Given education and Brief MI
  - Reduce drinking by 25% over following year

- Dependent drinkers (similar across studies & treatment modalities)
  - 1/3 remission x 1 yr
    - Abstinence or non-abstinence remission
  - 1/3 will show substantial improvement, but have some heavy drinking episodes
  - 1/3 will show no effect
  - Relapse occurs in most over ensuing 5-10 yrs
What’s a Standard Drink?

In the U.S., a standard drink is any drink that contains about 14 grams of pure alcohol.

| 12 oz. of beer or cooler | 8–9 oz. of malt liquor (8.5 oz. shown in a 12-oz. glass that, if full, would hold about 1.5 standard drinks of malt liquor) | 5 oz. of table wine | 3–4 oz. of fortified wine (such as sherry or port) | 2–3 oz. of cordial, liqueur, or aperitif | 1.5 oz. of brandy (a single jigger) | 1.5 oz. of spirits (a single jigger of 80-proof gin, vodka, whiskey, etc.) |

- 12 oz.
- 8.5 oz.
- 5 oz.
- 3.5 oz.
- 2.5 oz.
- 1.5 oz.
- 1.5 oz.

*Shown straight and in a highball glass with ice to show level before adding mixer.*
For healthy men up to age 65—

• no more than 4 drinks in a day AND
• no more than 14 drinks in a week

For healthy women

(and healthy men over age 65)—

• no more than 3 drinks in a day AND
• no more than 7 drinks in a week

Maximum ‘Healthy’ Drinking Limits
• “How many times in the past year have you had X or more drinks in a day?”
  • X is 5 for men and 4 for women, and a response of >1 is considered positive
  • 81.8% sensitive and 79.3% specific for the detection of unhealthy alcohol use
  • 87.9% sensitive and 66.8% specific for the detection of a current AUD
Alcohol Medication Treatment
• Ask about past WD sx's
• Use a CIWA-Ar (www.pcbehavioralhealth.com)
  • 0-8 No medication is necessary
  • 9-14 Medication is optional
  • A score of 15 or over requires meds
    • Consider hospitalization

Outpatient Alcohol Withdrawal
Patient: ____________________________ Date: ___________ Time: ________

Pulse or heart rate, taken for one minute: __________ Blood pressure: ______/_____

**Nausea and vomiting.** Ask: "Do you feel sick to your stomach? Have you vomited?"

Observation:
0—No nausea and no vomiting
1—Mild nausea with no vomiting
2—
3—
4—Intermittent nausea with dry heaves
5—
6—
7—Constant nausea, frequent dry heaves, and vomiting

**Tremor.** Ask patient to extend arms and spread fingers apart.

Observation:
0—No tremor
1—Tremor not visible but can be felt, fingertip to fingertip
2—
3—
4—Moderate tremor with arms extended
5—
6—
7—Severe tremor, even with arms not extended

**Paroxysmal sweats**

Observation:
0—No sweat visible
1—Barely perceptible sweating; palms moist
2—
3—
4—Beads of sweat obvious on forehead
5—
6—
7—Drenching sweats

**Anxiety.** Ask: "Do you feel nervous?"

Observation:
0—No anxiety (at ease)
1—Mildly anxious
2—
3—
4—Moderately anxious or guarded, so anxiety is inferred
5—
6—
7—Equivalent to acute panic states as occur in severe delirium or acute schizophrenic reactions

**Agitation**

Observation:
0—Normal activity
1—Somewhat more than normal activity
2—
3—
4—Moderately fidgety and restless
5—
6—
7—Paces back and forth during most of the interview or constantly thrashes about

**Tactile disturbances.** Ask: "Do you have any itching, pins-and-needles sensations, burning, or numbness, or do you feel like bugs are crawling on or under your skin?"

Observation:
0—None
1—Very mild itching, pins-and-needles sensation, burning, or numbness
2—Mild itching, pins-and-needles sensation, burning, or numbness
3—Moderate itching, pins-and-needles sensation, burning, or numbness
4—Moderately severe hallucinations
5—Severe hallucinations
6—Extremely severe hallucinations
7—Continuous hallucinations

**Auditory disturbances.** Ask: "Are you more aware of sounds around you? Are they harsh? Do they frighten you? Are you hearing anything that is disturbing to you? Are you hearing things you know are not there?"

Observation:
0—Not present
1—Very mild harshness or ability to frighten
2—Mild harshness or ability to frighten
3—Moderate harshness or ability to frighten
4—Moderately severe hallucinations
5—Severe hallucinations
6—Extremely severe hallucinations
7—Continuous hallucinations

**Visual disturbances.** Ask: "Does the light appear to be too bright? Is its color different? Does it hurt your eyes? Are you seeing anything that is disturbing to you? Are you seeing things you know are not there?"

Observation:
0—Not present
1—Very mild sensitivity
2—Mild sensitivity
3—Moderate sensitivity
4—Moderately severe hallucinations
5—Severe hallucinations
6—Extremely severe hallucinations
7—Continuous hallucinations

**Headache, fulness in head.** Ask: "Does your head feel different? Does it feel like there is a band around your head?"

Do not rate for dizziness or lightheadedness; otherwise, rate severity.

0—Not present
1—Very mild
2—Mild
3—Moderate
4—Moderately severe
5—Severe
6—Very severe
7—Extremely severe

**Orientation and clouding of sensorium.** Ask: "What day is this? Where are you? Who am I?"

Observation:
0—Oriented and can do serial additions
1—Cannot do serial additions or is uncertain about date
2—Date disorientation by more than two calendar days
3—Date disorientation by more than two calendar days
4—Disoriented for place and/or person

Total score: ________ (maximum = 67)

Rater's initials ________
# Timing of Alcohol Withdrawal Syndromes

<table>
<thead>
<tr>
<th>Syndrome</th>
<th>Clinical findings</th>
<th>Onset after last drink</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor withdrawal</td>
<td>Tremulousness, mild anxiety, headache, diaphoresis, palpitations, anorexia, GI upset</td>
<td>6 to 36 hours</td>
</tr>
<tr>
<td>Seizures</td>
<td>Generalized, tonic-clonic seizures, status epilepticus (rare)</td>
<td>6 to 48 hours</td>
</tr>
<tr>
<td>Alcoholic hallucinosis</td>
<td>Visual (occasionally auditory or tactile) hallucinations</td>
<td>12 to 48 hours</td>
</tr>
<tr>
<td>Delirium tremens</td>
<td>Delirium, tachycardia, hypertension, agitation, fever, diaphoresis</td>
<td>48 to 96 hours</td>
</tr>
</tbody>
</table>
Figure 1  Graphic representation of the kindling concept during alcohol withdrawal. The term “kindling” refers to the phenomenon that people undergoing repeated cycles of intoxication followed by abstinence and withdrawal will experience increasingly severe withdrawal symptoms with each successive cycle.
Double-Blind Trial of Gabapentin vs Lorazepam in the Tx of Alcohol Withdrawal

**Methods**: 100 individuals seeking opt tx of alcohol withdrawal randomized to double-blind treatment with 2 doses of gabapentin (900 mg tapering to 600 mg or 1200 tapering to 800 mg) or lorazepam (6 mg tapering to 4 mg) for 4 days.

**Results**: CIWA-Ar scores decreased over time in all groups; **high-dose gabapentin was statistically superior but clinically similar to lorazepam**. During treatment, lorazepam-treated participants had higher probabilities of drinking on the first day of dose decrease (day 2) and the second day off medication (day 6) compared to gabapentin-treated participants. Post-treatment, gabapentin-treated had less probability of drinking during the follow-up post-treatment period ($p = 0.2$ for 900 mg and $p = 0.3$ for 1200 mg) compared to the lorazepam-treated participants ($p = 0.55$). **The gabapentin groups also had less craving, anxiety, and sedation compared to lorazepam**.

**Conclusions**: Gabapentin was well tolerated and effectively diminished the symptoms of alcohol withdrawal in our population especially at the higher target dose (1200 mg) used in this study. Gabapentin reduced the probability of drinking during alcohol withdrawal and in the immediate postwithdrawal week compared to lorazepam.
The COMBINE Study

largest alcohol treatment to date

- RCT: 2001-2004, 1383 recently alcohol-abstinent volunteers (median age, 44 years) with primary alcohol dependence.

- Interventions: 8 groups received management with 16 weeks of naltrexone (100 mg/d) or acamprosate (3 g/d), both, and/or both placebos, with or without a combined behavioral intervention (CBI). A ninth group received CBI only (no pills). Patients were also evaluated for up to 1 year after treatment.

- Main Outcome Measures: Percent days abstinent from alcohol and time to first heavy drinking day.
  - *JAMA*. 2006;295
• All 9 groups had a substantial reduction in days of drinking
• The patient groups who demonstrated the best drinking outcomes after 16 weeks received:
  • Naltrexone with medical management (MM) counseling alone (no specialty CBI)
  • Or received specialty CBI with placebo pills and MM counseling
  • No advantage found for adding acamprosate either to MM or CBI
• This acamprosate result is puzzling, given the many European studies that have reported an acamprosate effect (over placebo) for maintaining abstinence from alcohol.

Results of the COMBINE Study
Naltrexone

- Mechanism: opioid antagonist
  - Blocks ETOH’s euphoric effect
  - Limits heavy drinking relapse
  - Limits craving

- Clinical use
  - Check LFTs
    - May give if mildly elevated
    - Consistent effect is to overall lower LFTs
  - Start after acute ETOH withdrawal
  - Best to start when beginning psychosocial treatment
  - 25 mg and increase after 7d to 50 mg
    - Initial transient S/E’s: nausea, HA, dizziness, weakness
Acamprosate

- Mechanism: GABA agonist and NMDA modulator
  - Not metabolized by liver
  - May help maintain abstinence, reduces heavy drinking
    - Prevents relapse, reduced drinking in those who do
  - US COMBINE Study no advantage over placebo
  - European meta-analyses conclusions
    - Modest effect over placebo
    - Effects increased as tx duration increased (3-12 months)

- Clinical use
  - Check RFTs before use in elderly or renal disease
  - Start after acute ETOH withdrawal
  - Best to start when beginning psychosocial treatment
  - 1998 mg/day (2-333 mg tabs TID)
  - S/Es: transient diarrhea, bloating, pruritis
Disulfiram (Antabuse)

- Mechanism: Inhibits aldehyde dehydrogenase
  - DER: ingesting ETOH increases acetaldehyde
    - Flushing, palpitations, decreased BP
    - N/V, SOB, dizziness, blurred vision, confusion
    - Severe: hypotension, tachy/bradycardia, death
      - >500 mg + >2oz ETOH
      - Reported to occur rarely w/ smaller doses + 1 drink

- For those highly committed to sobriety
  - Take 250 mg, carry ID
  - Avoid OTC & foods with ETOH
  - Wait 2 wks after d/c for ETOH exposure

- Side-effects: Hepatotoxicity: monitor LFTs closely. Optic neuritis: watch for visual changes. Peripheral neuropathy
• Gabapentin
  • 300-600 bid to tid prn

• Topiramate
  • GABAergic anticonvulsant
  • May improve depressive, anxiety, PTSD and obsessive-compulsive drinking symptoms
  • Positive dbrpc study, may get away with 75 mg qhs (taper up slowly)

• SSRIs
  • Especially effective if also meet MDD criteria
  • Start with citalopram, taper up to 20 mg
  • Study showed when trazadone stopped for early recovery insomnia, worsened relapse

Others ... (not FDA approved)
Counseling Approaches
Assess Stage Of Change
“Where are you at with your drinking?”
Why is addiction treatment evaluated differently? Both require ongoing care?

Yes!!!
Hypertension Treatment

No???
Addiction Treatment

Percentage of Patients Who Relapse

<table>
<thead>
<tr>
<th>Condition</th>
<th>Relapse Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1 Diabetes</td>
<td>30 to 50%</td>
</tr>
<tr>
<td>Drug Addiction</td>
<td>40 to 60%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>50 to 70%</td>
</tr>
<tr>
<td>Asthma</td>
<td>50 to 70%</td>
</tr>
</tbody>
</table>

Brief MI Strategy

Pros & Cons

SBIRT screened positive:

Pros first: “What works for you about...?”
  • Repeat using a reflective statement
Cons second: “What’s less useful for you about...?”
  • Repeat using a reflective statement
  • Brings out change talk
Anything else?
  • End with a summarizing statement
  • May move pt away from denial
Brief MI Strategy

Ask-Tell-Ask

Collaborative way to provide medical feedback and education:

- **Ask**: How much do you know about…
- **Tell**: Would you mind if I tell you some further info? Or, What happens to some people is that…?
- **Ask**: How does that fit with your own sense of things? What is your reaction to this information? Where does this leave you?
• CBT
  • ETOH, MJ, Cocaine, Meth, Nicotine
• Contingency management/motivational incentives
  • ETOH, stimulants, opioids, MJ, nicotine
• 12-step facilitation
  • ETOH, stimuls, opiates
• Family Behavioral Therapy

• MI
  • ETOH, MJ, nicotine
• Matrix Model
  • Stimulants
  • Learn about issues critical to addiction/relapse, direction & support from a therapist, and become familiar with self-help programs. monitored through urine testing.

Evidence Based Treatments
NIDA
• 6 criterion required for establishing causation: (1) magnitude of effect; (2) dose response effect; (3) consistent effect; (4) temporally accurate effects; (5) specific effects; (6) plausibility.

• Evidence for criteria 1, 2, 3, 4 and 6 is very strong
  • Rates of abstinence are about twice as high among those who attend AA (criteria 1, magnitude)
  • Higher levels of attendance are related to higher rates of abstinence (criteria 2, dose response);
  • Prior AA attendance is predictive of subsequent abstinence (criteria 4, temporal)
  • Mechanisms of action predicted by theories of behavior change are present in AA (criteria 6, plausibility)

Alcoholics Anonymous Effectiveness: Faith Meets Science  
Kaskutas, J Addict Dis 2009
Positive AUD/SUD
and pt is at preparation stage of change …

“Others have found these 3 alternatives helpful, which would work best for you?”

- 12-step alone
- 12-step plus intensive outpatient treatment
- 12-step plus residential treatment
- Other programs in your community
12 Step Preparation

• What are your concerns?

• Can someone go with you to a first meeting?
  ● You don’t have to talk. Just watch.

• Try a few meetings to find one where you feel socially comfortable
  ● Home meeting
  ● Action plan to commit to go to one meeting

• Keep eye out for a “temporary” sponsor

• Look at it like rehab after a knee replacement
  ● Not easy, hard work, but necessary to walk again
AUD Integrative Approaches

www.pcbehavioralhealth.com

- Smart Recovery and Life Ring
- Other 12-Step
  - Adult Children of Alcoholics, Alanon & Alateen
- Mindfulness-based
  - Refuge Recovery
  - Meditation Centers
- Auricular acupuncture for cravings
- Exercise
- Sleep hygiene
- Nutrition and supplements
  - B complex & thiamine
  - Vitamin D
  - Fish Oil: 2000 mg EPA
  - Magnesium
  - MVI
  - NAC
SOFT BELLY BREATHING EXERCISE
(A BACK POCKET RELAXATION TOOL)

Thanks to James Gordon MD Center for Mind-Body Medicine
(he credits Stephen Levine for idea)
QUESTIONS
15 minutes
Lunch
12:00-12:45pm
Diversion Breakout Session
Preventing Prescription Drug Diversion

Managing Pain Safely Forum
January 15, 2016
Matt Willis, MD MPH
What is drug diversion?

**Drug diversion:** The transfer of any prescribed controlled substance from the individual for whom it was prescribed to another person.
Your Experiences

• Have you ever stopped prescribing?
• What were some of the warning signs to make you stop prescribing?
  • What type of diversion were you suspicious of?
• What would have helped you navigate this encounter?
How are drugs diverted?

• All stages in the “life of the pill” are controlled under law
  • Manufacture, transport, storage, prescription, dispensing, use, disposal
  • All persons with access are specially entrusted
• Diversion can occur at any stage
• Sold, stolen, traded, given away
Sources for Nonmedical Use of Pain Relievers

Source Where User Obtained

- More than One Doctor (1.9%)
- One Doctor (18.1%)
- Other¹ (5.0%)
- Bought on Internet (0.3%)
- Drug Dealer/Stranger (3.9%)
- Bought/Took from Friend/Relative (16.6%)
- Free from Friend/Relative (54.2%)

Source Where Friend/Relative Obtained

- One Doctor (81.6%)
- More than One Doctor (3.1%)
- Free from Friend/Relative (5.5%)
- Bought/Took from Friend/Relative (5.7%)
- Drug Dealer/Stranger (1.9%)
- Other¹ (2.2%)
- Bought on Internet (0.2%)

SAMHSA, 2011 NSDUH National Findings Report
Neighborhoods with Highest Rates of Opioid Prescriptions Also Have the Highest Rates of Overdose Deaths

Rates of hydrocodone and/or oxycodone prescriptions filled by NYC neighborhood\(^5\)

- **Rate Range (per 100,000 residents)**
  - Light Blue: 10,154 - 19,635
  - Light Blue: 19,636 - 29,429
  - Medium Blue: 29,430 - 48,630
  - Dark Blue: Top 5

Rates of unintentional opioid analgesic poisoning (overdose) deaths by NYC neighborhood\(^4\)

- **Rate Range (per 100,000 residents)**
  - Light Blue: 0.0 - 1.4
  - Light Blue: 1.5 - 3.7
  - Medium Blue: 3.8 - 10.7
  - Dark Blue: Top 5

Definitions: The United Hospital Fund (UHF) classifies NYC into 42 neighborhoods, comprised of contiguous zip codes. Income is defined by the percent of households below 200% of the federal poverty level (Census 2000) and separated into three groups: low-income (43%-70%), medium-income (30%-43%) and high-income (13%-30%). To ensure rate stability, two years of prescription and death data were combined for neighborhood analyses.

Q: What is the approximate street value of an 8 ounce bottle of Promethazine with codeine?

A: +/- $300

Q: What are some names for cocktails made with promethazine w/ codeine?

A: Purple drank, purple sizzurp
Q: What is a Xanny Bar?

A: Xanax (Alprazolam) 2mg
Q: What is the most popular strength of Oxycodone on the street?

A: 30mg tabs
Q: What is the approximate street value for Oxycodone?

A: $1 per mg

A quick math exercise—
Oxycodone 30mg x $1/mg x 180 tablets = $5400
Q: How are people abusing the Fentanyl patch

A: They are scraping the patch, drawing it up, and injecting it
How to Prevent Diversion
Established Guidelines

PHP and CDC Opioid prescribing guidelines include:

- PDMP (CURES)
- Toxicology screens
- Medication agreements
- Safe storage
- Safe disposal

Source: http://www.cdc.gov/drugoverdose/prescribing/guideline.html
Marin County Prescribers Survey, 2015

• Providers who self-report as operating under opioid prescribing guidelines were:
  • 8 times more likely to perform urine drug screening
  • 12 times more likely to use a medication agreement
  • 17 times more likely to utilize CURES
An Argument for Using CURES When Prescribing

“Shopping” as a portion of all prescriptions

Opioid Overdoses

2005 Prescriptions Associated with Questionable Activity (Rates per 100,000 Prescriptions) by Pharmacy Town

2005 Opioid-related Overdoses Rate per 100,000 by Town

Slide provided courtesy of Peter Kreiner, PMP Center of Excellence at Brandeis. Doctor shopping= 4+ prescriber s and 4+ pharmacies for CS in six months.
CHANGES CAN BE MADE:
SOLICITED PDMP REPORTS, OKLAHOMA, 2010-2012

Information provided by Don Vogt, OK Bureau of Narcotics PMP, 2013.
CHANGES CAN BE MADE: AS PDMP USAGE INCREASED, DOCTOR SHOPPING DECREASED IN OKLAHOMA

Information provided by Don Vogt, OK Bureau of Narcotics PMP, 2013.
CURES 2.0 User Features

• Delegation Authority
  • Multiple designees can run report

• Peer-to-Peer Communication
  • Messaging between prescribers and with pharmacists

• Patient Safety Alerts/Messaging
Patient Safety Alerts

• Prescriber's Rx Recipients being Prescribed More than 100 MME/Day

• Prescriber's Rx Recipients being Prescribed More than 40 mg Methadone /Day

• Prescriber's Rx Recipients Who Have Obtained Prescriptions from 6 or More Prescribers, or 6 or More Pharmacies During Last 12 Months
Patient Safety Alerts

• Prescriber's Rx Recipients Who Are Currently Prescribed Opioids More Than 90 Consecutive Days

• Prescriber's Rx Recipients Who Are Currently Prescribed Both Benzodiazepines and Opioids
On Sept. 27, 2013, Senate Bill 809 passed requiring prescribers and pharmacists to apply for CURES access.

**H&S Code section 11165.1 (a)(1)(A)(i)**
A health care practitioner authorized to prescribe, order, administer, furnish, or dispense Schedule II, Schedule III, or Schedule IV controlled substances...shall, before **July 1, 2016**, or upon receipt of a federal DEA registration, whichever occurs later, submit an application to obtain approval to access CURES.

**H&S Code section 11165.1 (a)(1)(A)(ii)**
A pharmacist shall, before **July 1, 2016**, or upon licensure, whichever occurs later, submit an application to obtain approval to access CURES.

Use of the PDMP by prescribers and dispensers for prescription abuse prevention/intervention is voluntarily.
Law Enforcement: Example of Marin County DA Communication

Re: Defendant's name; Marin County Superior Court Case No. *A

Dear Physician's Name:

It has come to our attention that * is currently, or was recently a patient of yours.

On *, 2014, a criminal complaint was filed against *, alleging violations of Section * of the * Code, occurring on *. A copy of the Complaint is attached hereto for your reference.

This information is being provided as the result of a partnership between the Marin County District Attorney’s Office, Marin Health & Human Services, and Partnership HealthPlan of California. The goal of this partnership is to share information with physicians regarding unlawful prescription drug diversion and misuse, enabling physicians to make informed treatment decisions.

Please do not hesitate to contact our office if you have any questions.

Very truly yours,

EDWARD S. BERBERIAN
DISTRICT ATTORNEY

Deputy District Attorney

“The goal of this partnership is to share information regarding diversion... enabling physicians to make informed treatment decisions.”
Death Diary: 49 year old female  
“Compliant”

12 Rx – 1 Psychiatrist – 1 Pharmacy

<table>
<thead>
<tr>
<th>Month</th>
<th>Medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>Clonazepam 1mg #45, 45</td>
</tr>
<tr>
<td>October</td>
<td>Clonazepam 1mg - #30, 45, 90</td>
</tr>
<tr>
<td>November</td>
<td>Clonazepam 1mg - #90</td>
</tr>
<tr>
<td>December</td>
<td>Clonazepam 1 mg - #15,90</td>
</tr>
<tr>
<td>January</td>
<td>Clonazepam 1 mg - #120</td>
</tr>
<tr>
<td>February</td>
<td>Clonazepam 1 - #120</td>
</tr>
<tr>
<td>March</td>
<td>Clonazepam - #30, 120</td>
</tr>
</tbody>
</table>

Autopsy: Oxycodone
**Death Diary: 59 year old male**

“Holy Trinity”

75 Rx – 1 Psychiatrist – 3 Primary Care – 1 Pain

<table>
<thead>
<tr>
<th>Month</th>
<th>Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>Hydrocodone, Soma Hydromorphone, Ambien</td>
</tr>
<tr>
<td>October</td>
<td>Clonazepam, Soma, Hydromorphone, Ambien,</td>
</tr>
<tr>
<td></td>
<td>Hydrocodone, Soma, Clonazepam</td>
</tr>
<tr>
<td>November</td>
<td>Hydromorphone, Hydrocodone, Soma, Clonazepam,</td>
</tr>
<tr>
<td></td>
<td>Hydromorphone</td>
</tr>
<tr>
<td>December</td>
<td>Hydrocodone, Hydrocodone, Soma, Clonazepam,</td>
</tr>
<tr>
<td></td>
<td>Hydromorphone, Ambien</td>
</tr>
<tr>
<td>January</td>
<td>Hydrocodone, Soma, Clonazepam, Hydromorphone 4 mg,</td>
</tr>
<tr>
<td></td>
<td>Ambien</td>
</tr>
<tr>
<td></td>
<td>.....</td>
</tr>
<tr>
<td>August</td>
<td>Hydrocodone, Soma, Clonazepam, Morphine 60 mg,</td>
</tr>
<tr>
<td></td>
<td>Ambien</td>
</tr>
</tbody>
</table>

**Autopsy:** Morphine, Ambien, Sertraline, Hydroxyzine
### Death Diary: 56 Year Old Female

**“Start on methadone, End on Methadone”**

<table>
<thead>
<tr>
<th>Month</th>
<th>Notes</th>
<th>Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>February, March</td>
<td>No Meds</td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>ER#1: Hydrocodone #10&lt;br&gt;Dr. R: Codeine #40, Lorazepam #42</td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>Dr. P: Hydrocodone #15, Lorazepam #20</td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>ER#2: Hydrocodone #20, Lorazepam #20</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>ER#3: Oxycodone #20, Lorazepam #21&lt;br&gt;ER#4: Oxycodone #21, Lorazepam #20</td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>ER#5: Oxycodone #20, Lorazepam #6&lt;br&gt;Dr. L: Methadone #120</td>
<td></td>
</tr>
<tr>
<td>October</td>
<td>Dr. L: Methadone #120&lt;br&gt;ER #6: Hydrocodone #15&lt;br&gt;Dr. W: Lorazepam #8</td>
<td></td>
</tr>
<tr>
<td>November</td>
<td>ER #3: Oxycodone #5, Lorazepam #4&lt;br&gt;Dr. L: Methadone #120</td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>Dr. L: Methadone #120</td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>ER #7: Lorazepam #4</td>
<td></td>
</tr>
<tr>
<td>February 1, 2013</td>
<td>Dr. L: Methadone #30</td>
<td></td>
</tr>
<tr>
<td><strong>Death:</strong> February 7, 2013</td>
<td></td>
<td>Methadone, Clonazepam, Phenytoin, Carbamazepine, Gabapentin</td>
</tr>
</tbody>
</table>
Flags

• Combinations or “cocktails” of frequently abused controlled substances
• New clients with limited documentation and specific regimen requests
• Multiple prescribers in CURES
• Discrepancy between self report and CURES findings
• Discrepancy between self report and UDS
• Travel long distance to visit
• Strong preference for specific medication or brand
Flags

• Reluctance to allow examination or to provide urine for UDS
• Discussion of analgesic dominant issue of visit
• UDS +ve for illicit drugs or –ve for prescribed drugs
• Lack of interest in self management strategies
• Failure to attend appointments e.g. physiotherapy
• Hostile / aggressive (sudden change if not satisfied)
• Refusal to sign treatment agreement
Thank You
Behavioral Health for Chronic Pain Patients
Breakout Session
Chronic Pain: Skills for Patients and Practitioners

Presented by:
Pat Dwyer, Ph.D.
Psychologist
Kaiser Permanente
Chronic Pain Program
pat.j.dwyer@kp.org
(707) 651-4451
What NOT to Say!

**WARNING!!!**

Things **NOT** to say to someone with a disabling chronic illness:

...but you don't look sick
...everybody gets tired
...you're just having a bad day
...it must be nice not having to go to work
...I wish I had time to take a nap
...if you'd get out more
...you're just getting older
...if you'd get more exercise
...it can't be that bad
...it's all in your head
...you're just depressed
...there are people worse off than you
...you'll just have to tough it out
...you just need a more positive attitude
...this, too, shall pass

(I wouldn't wish what I have on anyone, but unless you get it, you just don't get it.)
At Our First Contact We Want Our Patients To Know

- Goals functional improvement, not zero pain along with keeping our patients safe
- You have real pain and it’s as bad as you say
- Meds aren’t enough
- Skills and Pills will help more
- Use movement and exercise for improvement
- Stage of Change—we’ll be working on what’s hardest to change
Like an iceberg PAIN is more than what we see
Assessment

- Mood evaluation and assessment for risk for harm to self or others
- Risk Factors and Protective Factors
- I put in every note--Patient does not appear to present an imminent risk for suicide
Risk Factors

Passive thoughts would be better off dead
Insomnia vs Global Insomnia
Impulsivity
Psychic anxiety/agitation
Severe Hopelessness
Severe Anhedonia
Medication Overdose, recent or remote
ED visits for suicidal ideation
Recent suicide attempt or serious gesture
Specific plan, intent and means
Intoxication
Mood congruent delusions of doom
Severe Ruminations
Guns - who is holding them, safety locks, bullets
Protective Factors

Hopeful
Seeking help
Seeking better pain control
Problem solving
Social support
Future goals
Religious
Children or grandchildren
Family member holds meds
Patient is followed in PSY

Aware of PSY crisis resources
including going to the ED and dialing 911 if needed
The Brains of a Healthy vs Chronic Pain Person

Northwestern University fMRI scan
At Evaluation

- Try to give the patient something to leave with, some hope
- Ask about their occupation use that with your skills metaphors
- Reinforce their resilience
- Ask them about something that is positive
- See if they notice their mind/body response and the shift in their comfort level and reduction in their pain level
- Sign release to coordinate care
Ways to help our patients manage
Complexity of Improved Function
Pain Pathways and the Mind-Body Connections

- Gate Control Theory (1965, 1982) and Melzak (2001) the matrix
- Biopsychosocial Factors that Open or Close the Gate
- Mind-Body Connections
- Using Mindfulness techniques
- Psychoneuroimmunology (PNI)
Melzak & Wall (1965, 1982)

Factors that Open and Close the Gate

<table>
<thead>
<tr>
<th>Close</th>
<th>Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful Surgery</td>
<td>Surgery/broken bones</td>
</tr>
<tr>
<td>Medications</td>
<td>Drug and ETOH overuse</td>
</tr>
<tr>
<td>Good Diet</td>
<td>Poor Diet/Nicotine</td>
</tr>
<tr>
<td>Movement</td>
<td>Deconditioning</td>
</tr>
<tr>
<td>Pacing (activity/rest)</td>
<td>Worry about Hurt vs Harm</td>
</tr>
<tr>
<td>Positive outlook</td>
<td>Negative outlook</td>
</tr>
<tr>
<td>Hopefulness</td>
<td>Hopelessness</td>
</tr>
<tr>
<td>Managing the pain</td>
<td>Focusing on the pain</td>
</tr>
<tr>
<td>Pleasant events</td>
<td>Depression/Anger</td>
</tr>
</tbody>
</table>
Pain Management Tools

- Goal Setting
- Behavior Change - *Premack Principle*
- Predicting “*The good the bad and the ugly*”
- Automatic Thought Records
- Pleasant Events for mood improvement “*Left brain shift*”
- Pacing activity/rest cycle vs “*Just do it*”
- Relaxation- “*small, medium and large*”
- Communication *use the cell phone and say NO*
- Sleep- *try a fan, turn the clock, nap*
The Mind-Body Connection

- The brain is not a passive recipient of pain signals
- Thoughts and feelings can “rewire” the brain and increase experience of pain
Relaxation Practice Time at the Beach
Small, Medium, Large
Changing the Brain

- Patients can gain control over specific brain regions with training

- Rostral Anterior Cingulate Cortex (rACC) leads to control over pain perception even severe, chronic pain

Anterior Cingulate Cortex
Learning to let go
of what we don’t need
Cortical Re-Organization

- Cortical plasticity related to chronic pain can be modified by behavioral interventions that provide feedback to the brain areas that were altered by somatosensory pain memories.

Where Placebo Effect Works in the Brain

- Using PET scans found that when treated with placebo, the brain released more opioids to relieve pain.

The research team of Tor Wager, Columbia University
Pain and Positive Expectation

- Positive expectations (i.e. decreased pain) produce a reduction in perceived pain by 28.4% and compares to a dose of morphine with an expected 25% reduction in pain.

- Data provide a neural mechanism that can modulate pain by positive expectations and has implications for use of CT skills.

Humor and Psychological Well-Being

Relationships between sense of humor and reports of physical well-being are supported in the literature.
At Termination

- Document treatment is ended
- Ways to continue to use skills
- Patient can return in the future
You too must have something that makes you smile
Closing and Evaluation
Summary of Day

- Integrated Clinics to treat substance use disorder
- The neuroscience behind SUD
- Screening for SUD
- Behavioral health techniques when working with chronic pain patients/patients with SUD
- Red flags and warning signs for diversion
- Medication assisted treatment
Looking Ahead in 2016: Health Plan Activities

- Provision of tele-consult services for complex patients on high-dose opioids
- Education and coordination around addiction screening and treatment
- Partner with CHCF for continued support in developing and sustaining local efforts targeted at reducing improper use of opioids
- Planning process for creating integrated clinics for high utilizers
- Pharmacy academic detailing
- MPS provider level data sharing
- Tapering guide/ toolkit
- Naloxone Pilot
Looking Ahead in 2016: Prescriber Activities

• Sign up for tele-consult services for complex patients on high-dose opioids
• Make local opioid oversight committees more robust
• Participate in regional coalitions
• Give feedback on draft plan for integrating chronic pain treatment with Medication Assisted Therapy
• Ask your PHC Regional Medical Director to meet with you and/or your clinicians to review their individual PHC opioid data and to review MPS
• Tapering guide/ toolkit
• Distribute Naloxone and educate patients/families on how to use it.
MPS Data Sharing Webinars

MANAGING PAIN SAFELY
DATA SHARING WEBINARS

This February, we will be hosting four county-focused webinars highlighting the data collected through our Managing Pain Safely program. The webinar will include a discussion of aggregate county-level data for specific measures and include a real-life example of provider-level data (all provider identifiable information will be omitted). This will be an opportunity for PHC providers to view the data collected, ask questions, and learn how to request additional data.

Visit the MPS webpage to register for one of the following webinars.

**Northern Region**
- February 9: Humboldt and Del Norte Counties
- February 10: Shasta, Siskiyou, Trinity, Modoc, and Lassen Counties

**Southern Region**
- February 11: Mendocino, Lake, Sonoma, and Marin Counties
- February 22: Yolo, Napa, and Solano Counties

**Contact Us**
- For additional information for Northern Region webinars contact: Marya Choudhry at (530) 990-6803 or mchoudhry@partnershiphp.org
- For additional information for Southern Region webinars contact: Danielle Niculescu at (707) 420-7817 or DNiculescu@partnershiphp.org
Thank You!