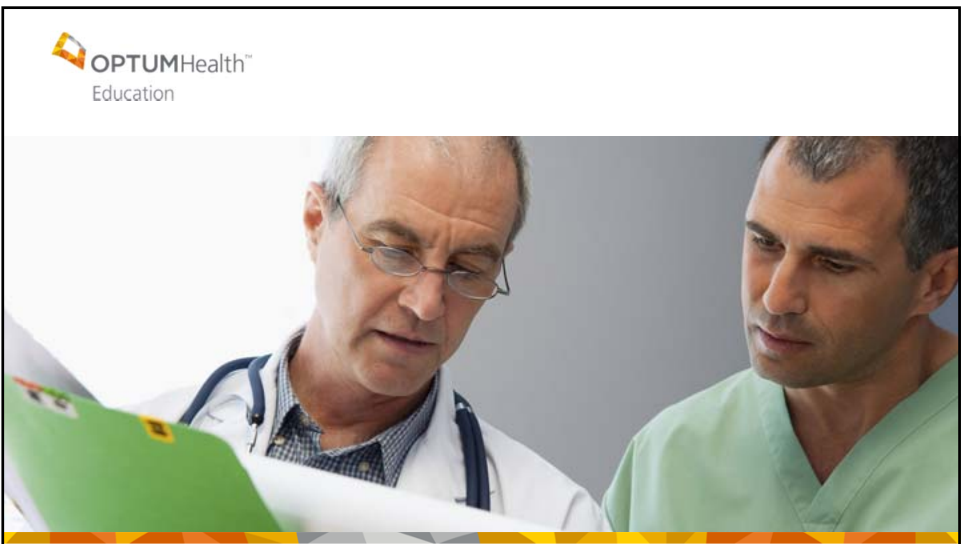

US Opioid Epidemic: Mitigation and Treatment Opportunities

Thomas Blocher, MD, MBA; Dianna Candelaria, PharmD, BCACP; and Roy Schneiderman, MD

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Disclosures

Thomas Blocher, MD, MBA has no relevant financial relationships to disclose.

Dianna Candelaria, PharmD, BCACP has no relevant financial relationships to disclose.

Roy Schneiderman, MD has no relevant financial relationships to disclose.

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Agenda

- Background
- CDC Guideline
- Mitigation Strategies
- Clinical Presentation
- Risk Factors/Chronic Pain Syndromes
- Treatment/Recovery Support
- **Case Management Opportunities**

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Learning Objectives

At the end of this activity, participants should be able to:

- Report the current state of the United States opioid epidemic and identify populations at risk of excessive usage including overdose.
- Identify key components of the CDC (Centers for Disease Control and Prevention) Guideline for Prescribing Opioids for Chronic Pain and recognize potential risk of opioid misuse based on frequency and quantity prescribed.
- Describe mitigation strategies to reduce the risk of dependence and misuse of opioids.
- State ways in which members of the interdisciplinary team can effectively evaluate and support patients at risk of developing dependence and those with opioid-use disorder.

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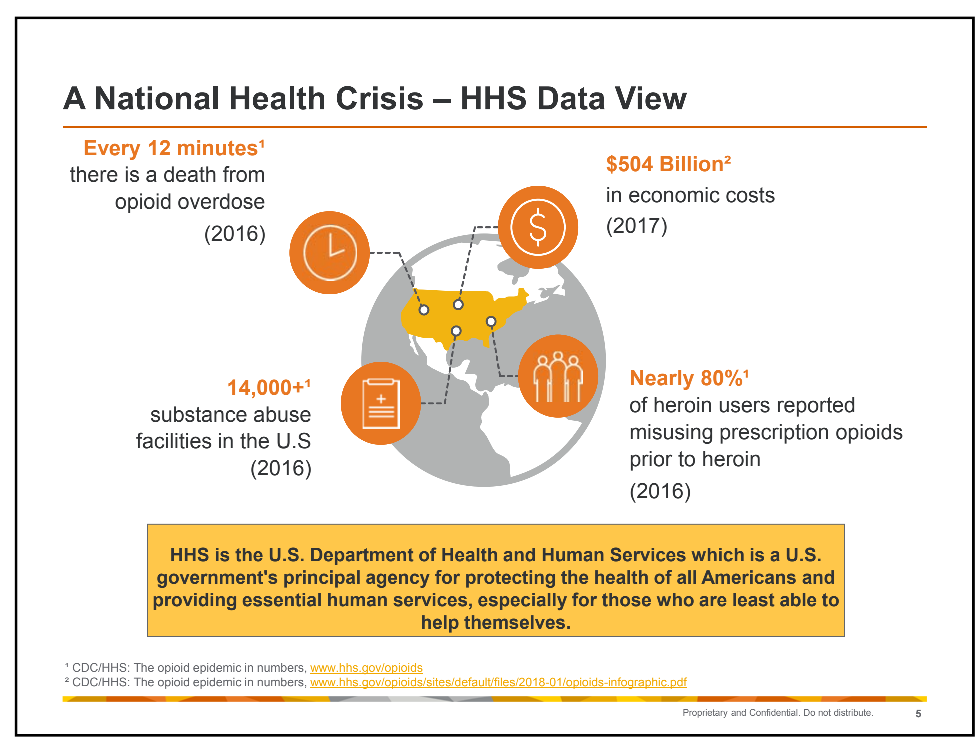

US Drug Overdose Death Rate* in Perspective

National Vital Statistics Report	1999	2015
All Causes	857.0	844.0
Firearms	10.3	11.3
Alcohol	7.0	10.3
Drugs	6.9	17.2

*per 100,000 population

National Vital Statistics Reports: www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66_06.pdf, vol. 66, no. 6, pp 27-34, November 27, 2017

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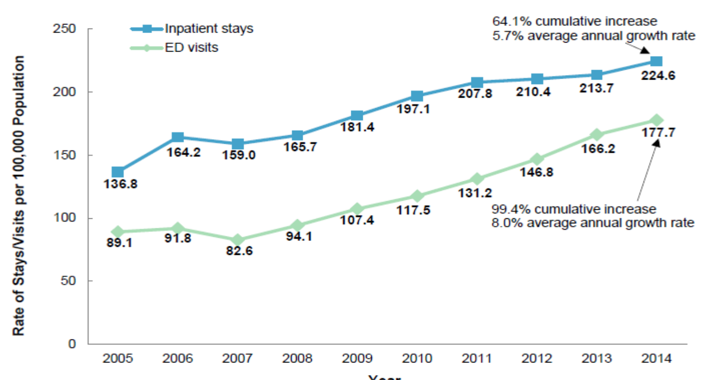
US Hospital Care Trending – AHRQ Data View



Agency for Healthcare Research (AHRQ) is an agency within the U.S. HHS, that invests in research and evidence to make health care safer and to improve quality.

Agency for Healthcare Research and Quality (AHRQ): //hcup-us.ahrq.gov/reports/statbriefs/sb219-Opioid-Hospital-Stays-ED-Visits-by-State.pdf, Page 3, Source: Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National (Nationwide) Inpatient Sample (NIS) and the HCUP Nationwide Emergency Department Sample (NEDS) Healthcare cost and utilization project, Statistical Brief #219 Dec 2016 (Revised Jan 2017)

Timeline: How Did We Get Here?

- **1911-1990:** Opioid (narcotic) pain medications used primarily for acute pain and cancer pain[1]
- **1987:** MS Contin® (morphine sulfate extended-release) 30mg FDA approved[1]
- **1990:** Duragesic® (fentanyl transdermal system) approved; first formulation of an opioid pain medicine in a patch[1]
- **1995:** OxyContin® (oxycodone hydrochloride extended-release) FDA approved[1]
- **1996:** Pharmaceutical Company launches an extensive campaign to market and promote[2]
- **2000:** The Joint Commission's standards for pain management called for organizations to quantify patient pain on a 10-point scale as self-reported by the patients[3]
- **2000's:**
  - Opioid drug volume and death toll skyrocket
  - Government collaboration to develop public education regarding prescription drug abuse[1]
- **2007:** Pharmaceutical company pays $634 million in fines for false promotion, three executives pleaded guilty to criminal charges[4]
- **2010:** FDA approval of a new formulations of OxyContin® (oxycodone hydrochloride extended-release) to help discourage misuse and abuse[1]
- **2006-2016:** 216-255 million opiate prescriptions were issued annually in the U.S[5]

[1] FDA: Timeline for selected FDA activities, significant events addressing opioid misuse and abuse, www.fda.gov/downloads/Drugs/DrugSafety/InformationbyDrugClass/UCM566985.pdf
[2] GAO: U.S. General accounting office report to congressional requesters, www.gao.gov/new.items/d04110.pdf, pp 16
[3] JAMA: Pain management standards are unveiled. Joint Commission on Accreditation of Healthcare Organizations, jamanetwork.com/journals/jama/article-abstract/2552036?redirect=true2000; 284(4):428-9
[4] NewYork Time: In guilty plea, oxycontin makers to pay $600 million, www.nytimes.com/2007/05/10/business/11drug-web.html
[5] CDC: U.S. Prescribing rate map, www.cdc.gov/drugoverdose/maps/rxrate-maps.html, table 1

CDC Guidelines for Prescribing Opioids for Chronic Pain

- Guideline published March 2016
- Recommendations for prescribing opioids for chronic pain (outside of active cancer, palliative, and end-of-life care)
- Three (3) areas for consideration:
  - Determining when to initiate or continue opioids for chronic pain
  - Opioid selection, dosage, duration, follow-up, and discontinuation
  - Assessing risk and addressing harms of opioid use

CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016

CDC: Guideline for prescribing opioids for chronic pain – United States, 2016. MMWR, www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm, vol 65, No 1. March 18, 2016, introduction

Determining When to Initiate or Continue Opioids for Chronic Pain

CDC Guideline for Prescribing Opioids for Chronic Pain Recommendations

Image Source: Photo Library Image GET_487685815

1. "Nonpharmacological therapy and non-opioid pharmacological therapy are preferred for chronic pain."
2. "Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with patients, including realistic goals for pain and function, and should consider how therapy will be discontinued if benefits do not outweigh risks."
3. "Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy..."

CDC: Guidelines at a glance, www.cdc.gov/drugoverdose/pdf/Guidelines_At-A-Glance-508.pdf, CDC recommendation, pp 3-4

Opioid Selection, Dosage, Duration, Follow-up, and Discontinuation

CDC Guideline for Prescribing Opioids for Chronic Pain Recommendations

4. "When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids."
5. "When opioids are started, clinicians should prescribe the lowest effective dosage."
   - Carefully assess benefits and risks when increasing dosage ≥ 50 MME (morphine milligram equivalents) per day
   - "Avoid increasing dosage to ≥ 90 MME per day or carefully justify decision to titrate ≥ 90 MME per day"

Image Source: Photo Library Image Lifestyle_ MedCabinet_0001

CDC: Guidelines at a glance, www.cdc.gov/drugoverdose/pdf/Guidelines_At-A-Glance-508.pdf, CDC recommendation, pp 3-4

Opioid Selection, Dosage, Duration, Follow-up, and Discontinuation

CDC Guideline for Prescribing Opioids for Chronic Pain Recommendations

6. "Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe lowest effective dose of immediate-release opioids and prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids.
   - Three (3) days or less will often be sufficient
   - More than seven (7) days will rarely be needed"

Image Source: Photo Library Image Hospital_Pharmacy_0106

7. "Clinicians should evaluate benefits and harms with patients within one (1) to four (4) weeks of starting opioid therapy for chronic pain or of dose escalation.
   - Clinicians should evaluate benefits and harms of continued therapy with patient every three (3) months or more frequently
   - If benefits do not outweigh harms of continued opioid therapy; clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or taper to discontinue opioids"

Image Source: Photo Library Image GettyImages-518285260

CDC: Guidelines at a glance, www.cdc.gov/drugoverdose/pdf/Guidelines_At-A-Glance-508.pdf, CDC recommendation, pp 3-4

Assessing Risk and Addressing Harms to Opioid Use

CDC Guideline for Prescribing Opioids for Chronic Pain Recommendations

8. "Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms;…should incorporate strategies to mitigate risk."
   - e.g. Offering naloxone when there is an increased risk for opioid overdose, such as: a history of overdose, history of substance use disorder, higher opioid dosages (≥ 50 MME/day) or concurrent benzodiazepine use

Image Source: Photo Library Image Euro_Command_Center_0268

9. "Clinicians should review patient's history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine if the patient is receiving opioid dosages or dangerous combinations that put the patient at high risk for overdose.
   - PDMP data should be reviewed when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every three (3) months"

CDC: Guidelines at a glance, www.cdc.gov/drugoverdose/pdf/Guidelines_At-A-Glance-508.pdf, CDC recommendation, pp 3-4

Assessing Risk and Addressing Harms to Opioid Use

CDC Guideline for Prescribing Opioids for Chronic Pain Recommendations

10. "When prescribing opioids, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually."
11. "Clinicians should avoid prescribing opioid pain medication and benzodiazepines (tranquilizers) concurrently whenever possible."
12. "Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment {MAT}) for patients with opioid use disorder."

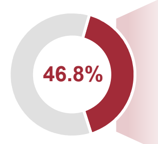
Image Source: Photo Library Image OPT15_02591_J_jpg_thumb_319_319_1447043915000

Image Source: Photo Library Image Lifestyle_Pills_0024

CDC: Guidelines at a glance, www.cdc.gov/drugoverdose/pdf/Guidelines_At-A-Glance-508.pdf, CDC recommendation, pp 3-4

2016 Large Pharmacy Benefit Manager Company

Providing a View of Their Compliance with CDC Guidelines



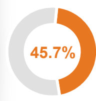
Not in compliance with CDC first-fill recommendations

20.3%
≥ 50 morphine-mg-equivalents

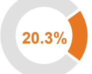
17.8%
over a 7-day supply

8.7%
in combination with a benzodiazepine

91.5% **No evidence of MAT** following opioid use disorder, dependence or previous overdose



Patients **receiving opioid prescriptions** following opioid use disorder, dependence or previous overdose



Patients **receiving opioid prescriptions** subsequent to initiation of MAT

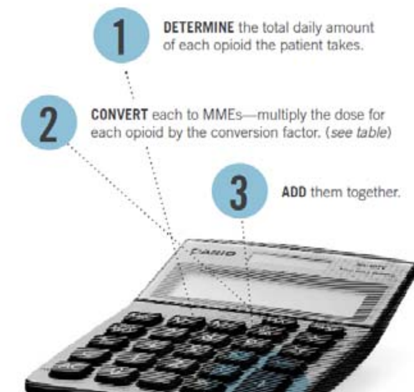
Pharmacy benefit manager CY'16 commercial managed care medical and pharmacy claims data

Calculating Morphine Milligram Equivalents (MME)

1 **DETERMINE** the total daily amount of each opioid the patient takes.

2 **CONVERT** each to MMEs—multiply the dose for each opioid by the conversion factor. (*see table*)

3 **ADD** them together.

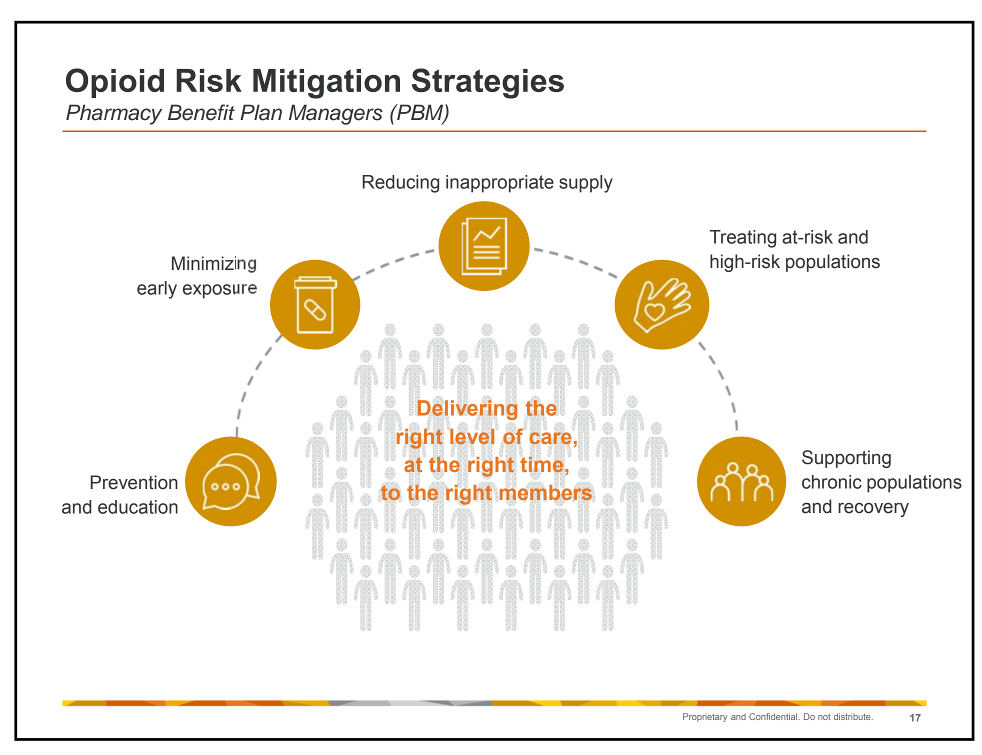


Calculating morphine milligram equivalents (MME)

OPIOID (doses in mg/day except where noted)	CONVERSION FACTOR
Codeine	0.15
Fentanyl transdermal (in mcg/hr)	2.4
Hydrocodone	1
Hydromorphone	4
Methadone	
1-20 mg/day	4
21-40 mg/day	8
41-60 mg/day	10
≥ 61-80 mg/day	12
Morphine	1
Oxycodone	1.5
Oxymorphone	3

These dose conversions are estimated and cannot account for all individual differences in genetics and pharmacokinetics.

CDC/HHS: Calculating total daily dose of opioids for safer dosage, www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose-a.pdf


Opioid Risk Mitigation Strategies
Pharmacy Benefit Plan Managers (PBM)
Reducing inappropriate supply
Minimizing early exposure
Treating at-risk and high-risk populations
Delivering the right level of care, at the right time, to the right members
Prevention and education
Supporting chronic populations and recovery
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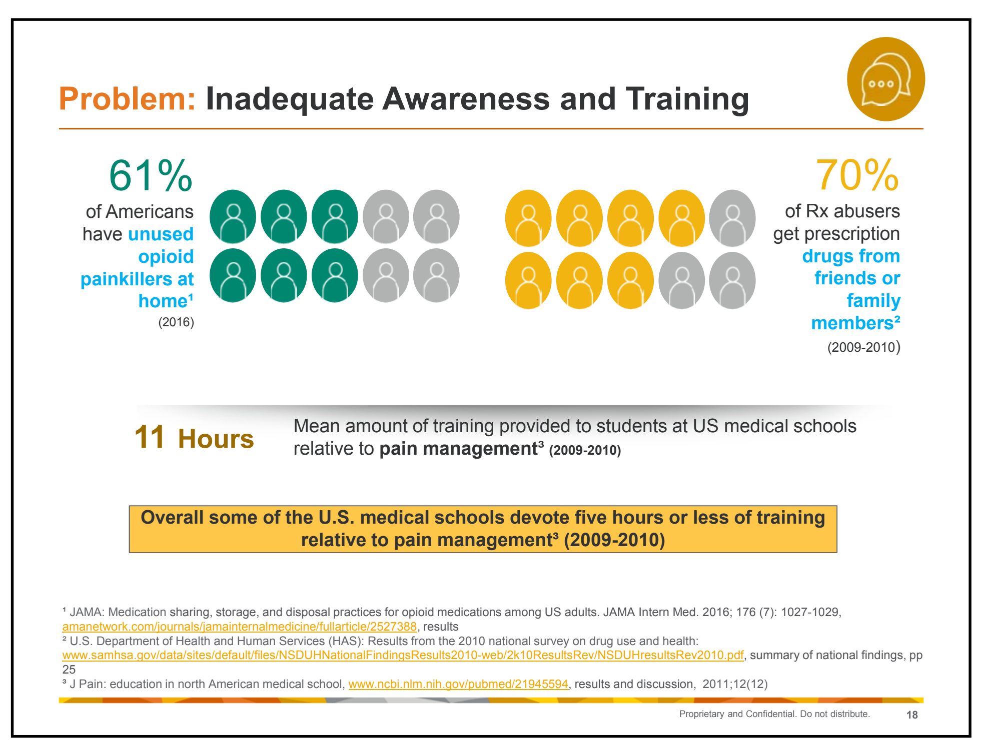
Problem: Inadequate Awareness and Training
61%
of Americans have unused opioid painkillers at home¹
(2016)
70%
of Rx abusers get prescription drugs from friends or family members²
(2009-2010)
11 Hours
Mean amount of training provided to students at US medical schools relative to pain management³ (2009-2010)
Overall some of the U.S. medical schools devote five hours or less of training relative to pain management³ (2009-2010)
¹ JAMA: Medication sharing, storage, and disposal practices for opioid medications among US adults. JAMA Intern Med. 2016; 176 (7): 1027-1029, amanetwork.com/journals/jamainternalmedicine/fullarticle/2527388, results
² U.S. Department of Health and Human Services (HAS): Results from the 2010 national survey on drug use and health: www.samhsa.gov/data/sites/default/files/NSDUHNationalFindingsResults2010-web/2k10ResultsRev/NSDUHresultsRev2010.pdf, summary of national findings, pp 25
³ J Pain: education in north American medical school, www.ncbi.nlm.nih.gov/pubmed/21945594, results and discussion, 2011;12(12)
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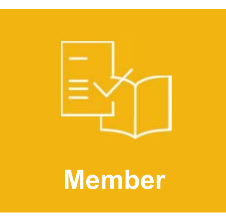
Solution: Examples of Prevention and Education



Prevention and Proper Usage

- First-fill patient mailings
- Partnerships with national advocacy groups
- Educational resources via member portals and mailings

Appropriate Prescribing and Patient Management

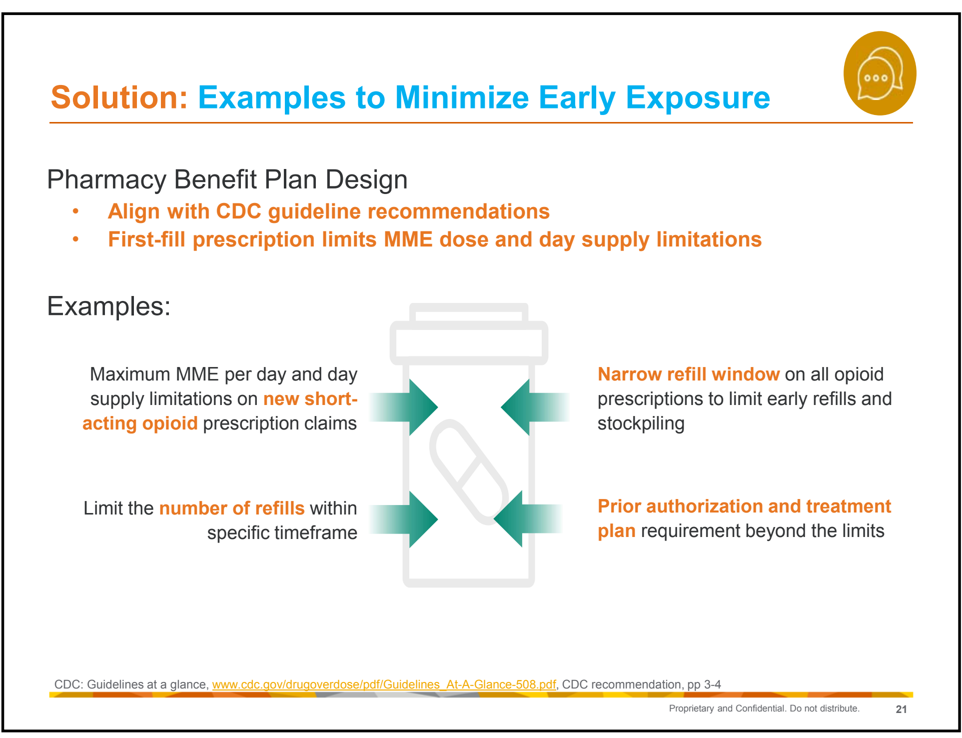
- Prescriber Education
  - CDC guideline reinforcement
  - Opioid abuse patient and pain management resources
- Pharmacy fax blasts

Problem: Rapid Onset of Dependence

Opioid dependence can start in **days of taking the drug**

"After taking opioids for just five (5) days in a row, a person is more likely to take them long-term"

CDC: Get the facts, www.cdc.gov/drugoverdose/pdf/patients/Get-the-Facts-a.pdf



Solution: Examples to Minimize Early Exposure
Pharmacy Benefit Plan Design
• Align with CDC guideline recommendations
• First-fill prescription limits MME dose and day supply limitations
Examples:
Maximum MME per day and day supply limitations on new short-acting opioid prescription claims
Narrow refill window on all opioid prescriptions to limit early refills and stockpiling
Limit the number of refills within specific timeframe
Prior authorization and treatment plan requirement beyond the limits
CDC: Guidelines at a glance, www.cdc.gov/drugoverdose/pdf/Guidelines_At-A-Glance-508.pdf, CDC recommendation, pp 3-4
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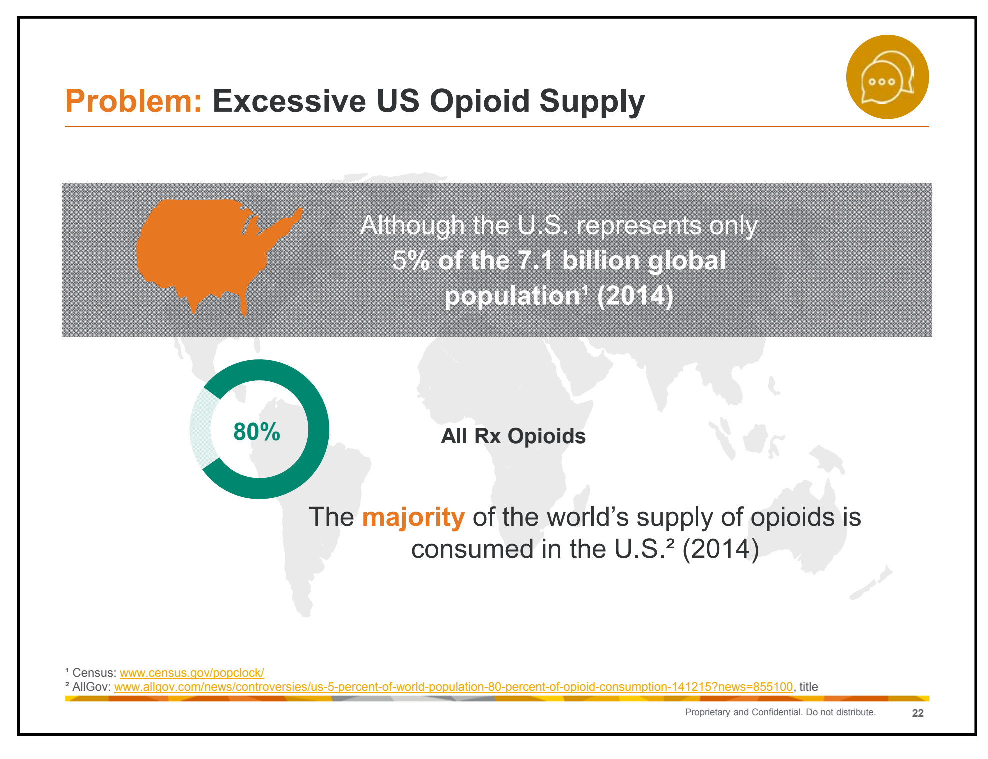

Problem: Excessive US Opioid Supply
Although the U.S. represents only 5% of the 7.1 billion global population¹ (2014)
80%
All Rx Opioids
The majority of the world's supply of opioids is consumed in the U.S.² (2014)
¹ Census: www.census.gov/popclock/
² AllGov: www.allgov.com/news/controversies/us-5-percent-of-world-population-80-percent-of-opioid-consumption-141215?news=855100, title
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Problem: Excessive US Opioid Supply

214 Million
opiate prescriptions issued in the U.S.[1] (2016)

3X
health care providers ordered opioid Rx in the highest-prescribing states vs. the lowest prescribing states[2] (2012)

92 Units
average # of tablets* per prescription[3] (2016)

*Oxycodone-Acetaminophen and Hydrocodone-Acetaminophen

[1] CDC: www.cdc.gov/drugoverdose/maps/rxrate-maps.html, table 1
[2] CDC: Vital Signs: Variation Among States in Prescribing of Opioid Pain Relievers and Benzodiazepines — United States, 2012, MMWR 2014; 63(26):563-568, results
[3] Pharmacy benefit manager CY'16 commercial managed care medical and pharmacy claims data

Solution: Examples to Reduce Inappropriate Supply

Initial Supply:

- **Lowest effective dose/quantity of short-acting opioid**
- **Assess risk: benefit if opioid dosage ≥ 50 MME**
- **Avoid dosages ≥ 90 MME without justification[1]**

- Pharmacy network auditing[1]
- Prescriber surveillance, scoring, and intervention[1]

- Advanced concurrent drug utilization review:
  - Opioid + benzodiazepine (such as: Xanax®, Klonopin®, Librium®, Ativan®)
  - Acetaminophen (Tylenol®) daily dosage limitations with combination products[2]

[1] CDC: Guidelines at a glance, www.cdc.gov/drugoverdose/pdf/Guidelines_At-A-Glance-508.pdf, CDC recommendation, pp 3-4
[2] Lexicomp: Morphine, online.lexi.com/lco/action/doc/retrieve/docid/patch_f/1799128#f_interactions, interactions

Risk Factors for Individual Prescription Dependence Disorder

Preventing Prescription Drug Misuse:
Understanding Who Is at Risk, CAPT Decision-Support Tool (2016)

- **Prior substance abuse**
- **Family history of substance abuse**
- Demographics (age, education, income, and health)
- Prescription access
- Having health insurance
- Negative life events
- Employment
- **Prior/current engagement with legal system**
- **Tobacco use**
- Mental health disorders
- Workplace
- Spiritual beliefs
- Youth ages 12 to 17, that have moved three or more times in the past year
- Cognitive: Impulsivity, lack of judgment, attention deficit hyperactivity disorder (ADHD) by history
- **Psychosocial: "slippery people, places, and things"**

SAMHSA: CAPT Decision-Support Tools, www.samhsa.gov/capt/sites/default/files/resources/preventing-prescription-drug-misuse-understanding.pdf, pp12-35

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Opioid Use Disorder - Clinical Presentation

- Toxicity
  - Sedation, decreased respiration, blood pressure and heart rate may be decreased or unchanged, possible seizures, and myosis (constriction of pupils)[1]
- Withdrawal
  - Nausea/vomiting, sweating, dysphoria (a state of unease), abdominal cramping, diarrhea, mydriasis (dilation of pupils)
  - Severe distress: Elevated heart rate, blood pressure, respiration rate[2]
- Normal effects
  - Developed tolerance[2]
  - Often present seeking treatment for their addiction[3]
  - Can lead to withdrawal[2]
- Drug seeking behavior
  - Demanding and desperate quality[3]

[1] UpToDate: Physical examination findings of opioid toxicity, www.uptodate.com/contents/image?imageKey=EM%2F77213&topicKey=EM%2F300&source=see_link
[2] UpToDate: Opioid withdrawal in the emergency setting, physical examination, and pharmacology and cellular, www.uptodate.com/contents/opioid-withdrawal-in-the-emergency-setting?search=Opioid%20withdrawal%20in%20the%20emergency%20setting&usage_type=default&source=search_result&selectedTitle=1~150&display_rank=1
[3] US Department of Justice, DEA: Don't be scammed by a drug abuser, www.deadiversion.usdoj.gov/pubs/brochures/drugabuser.htm, Common characteristics of the drug abuser

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Opioid Overdose - Clinical Presentation

- Signs and symptoms of an opioid overdose that can lead to death

  During an overdose, breathing can be dangerously slowed or stopped, causing brain damage or death. It's important to recognize the signs and act fast. Signs include:
  - Small, constricted "pinpoint pupils"
  - Falling asleep or loss of consciousness
  - Choking or gurgling sounds
  - Limp body
  - Pale, blue or cold skin
- What to do if you think someone is overdosing
  - Call 911 immediately
  - Administer naloxone, if available
  - Try to keep the person awake and breathing
  - Lay the person on their side to prevent choking
  - Stay with him or her until emergency workers arrive

CDC/HHS: Preventing an opioid overdose, www.cdc.gov/drugoverdose/pdf/patients/Preventing-an-Opioid-Overdose-Tip-Card-a.pdf, pp 2

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Opioid Use and Pregnancy

Opioid use during pregnancy has increased dramatically in recent years[1]

Opioid use during pregnancy has been associated with:

- Miscarriage
- Preeclampsia
- Placental abruption
- Placental insufficiency
- Premature rupture of membranes (preterm labor - before 37 weeks)
- Postpartum hemorrhage
- Fetal growth restriction
- Premature birth
- Neonatal opioid withdrawal[1]

Opioid use during pregnancy has been associated with an increased risk of birth defects, such as:

- Neural tube defects
- Heart defects
- Gastroschisis
- Fetal death[2]

[1] HealthEd: OUD, healthed.optum.com/content/replatform/healtheducation/topics/opioid-use-disorder-oud.html#pregnancy, pregnancy specific
[2] CDC/HHS: Pregnancy and Opioid, www.cdc.gov/drugoverdose/pdf/pregnancy_opioid_pain_factsheet-a.pdf, pp1

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Opioid Risk Assessment Tools

National Institute of Drug Abuse (NIDA)

- **Screener and Opioid Assessment for Patients in Pain (SOAPP-R)**
  - **Predicts possible adult opioid abuse in chronic pain patients, sample questions:**
    - ✓ How often do you have mood swings? 0 1 2 3 4
    - ✓ How often do you smoke a cigarette within an hour after you wake up? 0 1 2 3 4
    - ✓ How often have you taken medication other than the way that it was prescribed? 0 1 2 3 4
    - ✓ How often have you used illegal drugs (marijuana, cocaine, etc.) in the past five years? 0 1 2 3 4
    - ✓ How often, in your lifetime, have you had legal problems or been arrested?
- Drug Abuse Screening Test (DAST) (DAST 10, 20 {adolescent} and 28)
  - Assesses problems and consequences related to drug
- Opioid Risk Tool (ORT)
  - Administered at initial visit prior to beginning opioid therapy for pain management.
    - ✓ Score of three or lower indicates low risk for future opioid abuse, a score of four to seven indicates moderate risk for opioid abuse, and a score of eight or higher indicates a high risk for opioid abuse.

NIH: Chart of Evidence-Based Screening Tools for Adults and Adolescents, www.drugabuse.gov/nidamed-medical-health-professionals/tool-resources-your-practice/screening-assessment-drug-testing-resources/chart-evidence-based-screening-tools-adults

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What About Chronic Pain Syndromes?

- Centralized from peripheral nerve injury
- Direct brain injury
  - Total brain injury (TBI)
  - Post-stroke
  - Post-infection
  - Multiple sclerosis
  - Phantom limb pain
- Originates inside brain from auto-immunity, genetics or unknown
  - Fibromyalgia
  - Interstitial cystitis

UpToDate: www.uptodate.com/contents/evaluation-of-chronic-pain-in-adults?search=Shift%20from%20Acute%20Pain%20to%20Chronic%20Pain&source=search_result&selectedTitle=4~150&usage_type=default&display_rank=4, common causes of chronic pain

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Chronic/Central Pain Definition

- Constant pain driven by focus inside brain and characterized by stimulation of sympathetic nervous and endocrine systems
- Central pain
  - Pain in the brain is real and not imaginary
  - Not “neurogenic pain” (based on peripheral nerve)
  - Includes phantom limb pain and fibromyalgia
  - Type of pain has different quality
- Pathophysiology? Process of glial cell activation, neuro-inflammation and imbedding of pain memory
- First Symptoms: Social and physical isolation

NIH: Central Pain Syndrome Information Page, www.ninds.nih.gov/disorders/all-disorders/central-pain-syndrome-information-page, definition

Pathophysiology of Chronic Pain: Similar to Opiates

- Acute to chronic pain is defined as pain that is greater than three months[1]
- Acute pain and chronic pain can co-exist[2]
  - Brain can’t always tell difference between opioid withdrawal and pain recurrence[2]
  - Paradoxical responses to opioids do occur in chronic pain
  - Areas of brain atrophy in people with chronic pain which may be corrected or normalized by successful treatment of pain
- Chronic pain and opioid addiction are similar in effects on autonomic nervous and endocrine system
  - Systems are initially stimulated by acute pain and early opiate use
  - Blood pressure and pulse rate increase, adrenaline released
  - As acute pain wears down into chronic pain, same system become worn out, e.g. adrenal insufficiency, loss of appetite, inability to “love and bond” (oxytocin failure)

[1] UpToDate: Evaluation of chronic pain in adults, www.uptodate.com/contents/evaluation-of-chronic-pain-in-adults?search=Shift%20from%20Acute%20Pain%20to%20Chronic%20Pain&source=search_result&selectedTitle=4~150&usage_type=default&display_rank=4, common causes of chronic pain
[2] UpToDate: Management of acute pain in the patient chronically using opioids, www.uptodate.com/contents/management-of-acute-pain-in-the-patient-chronically-using-opioids?search=Management%20of%20acute%20pain%20in%20the%20patient%20chronically%20using%20opioids&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1, introduction and challenges

Treatment of Chronic Pain

Opioids are not treatment of choice for chronic pain[1]

Aggressive Medical RX May Be Required	Alternative Approaches May Be More Effective
Neuropathic Agents	MBSR
Antidepressants	Diet and Exercise[2]
Neurohormone Replace	HCG, Cortisol, Oxytocin
Sleep Sedatives	Function >> Feelings
NSAIDS	Tumeric, Arnica, Omega 3
Stimulants	Ritalin, DextroAmphetamine
Benzos	Socialization
Opiates	Minocycline for Glial Cells

[1] UpToDate: Use of opioids in the management of chronic non-cancer pain, www.uptodate.com/contents/use-of-opioids-in-the-management-of-chronic-non-cancer-pain?se Chronic%20Pain%20Treatment&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2, introduction
[2] ACPA: www.theacpa.org/wp-content/uploads/2018/03/ACPA_Resource_Guide_2018-Final-v2.pdf, pp 18-22, exercise

Problem: Dependency Challenges

$10-20K
excess annual medical costs

opioid abusers vs non-abusers[1]
(Jan 2012- March 2015)

1 in 4

receiving prescription opioids long term in a primary care setting struggles with addiction[2]

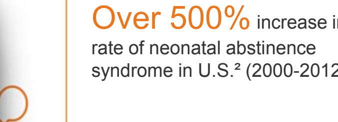
80%
heroin users

report starting on Rx opioids prior to transitioning to heroin[3]

[1] JMCP: The economic burden of opioid abuse: updated finding, www.jmcp.org/doi/abs/10.18553/jmcp.2017.16265, Vol. 23, No. 4, April 2017, Abstract
[2] CDC: www.cdc.gov/drugoverdose/pdf/AHA-Patient-Opioid-Factsheet-a.pdf, pp1
[3] HHS: www.hhs.gov/opioids/

Problem: Dependency Challenges

Collateral Damage: Our Nation's Children



35% increase in U.S. hospitalization related to opioids[1] (2004-2015)

20% of children <6 years of age hospitalized with methadone ingestion[1] (2004-2015)

Over 500% increase in rate of neonatal abstinence syndrome in U.S.[2] (2000-2012)

Every 25 minutes a baby is born suffering from opioid withdrawal[2] (2012)

Neonatal abstinence syndrome is a postnatal drug withdrawal syndrome that occurs primarily among opioid-exposed infants shortly after birth, often manifested by central nervous system irritability, autonomic over reactivity, and gastrointestinal tract dysfunction[3]

[1] AAP: Opioid-Related Critical Care Resource Use in US Children's Hospitals, pediatrics.aappublications.org/content/early/2018/03/01/peds.2017-3335, What this study adds, data source
[2] NIH: Dramatic Increases in Maternal Opioid Use and Neonatal Abstinence Syndrome, www.drugabuse.gov/related-topics/trends-statistics/infographics/dramatic-increases-in-maternal-opioid-use-neonatal-abstinence-syndrome
[3] CDC/MMWR: Incidence of Neonatal Abstinence Syndrome, www.cdc.gov/mmwr/volumes/65/wr/mm6531a2.htm, 28 States, 1999–2013, Weekly / August 12, 2016 / 65(31);799–802

Solution: Treating At-Risk and High-Risk Populations

Preventing progression to dependence/ abuse

Pharmacy benefit manager (PBM) interventions may include prescriber outreach to address:

- Notification when patient receiving multiple Rx from multiple pharmacies and/or multiple prescribers
- Overuse of opioids and other potential drugs of abuse
- Use of concurrent opioids and benzodiazepines over prolonged periods of time
- Excessive early refills

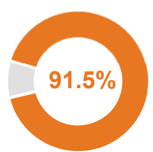
Clinical Pharmacist engagement in case management

- Comprehensive medication review
- Prescriber-focused outreach and consultation
- Continuous patient monitoring

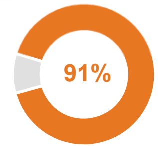
CDC: Guidelines at a glance, www.cdc.gov/drugoverdose/pdf/Guidelines_At-A-Glance-508.pdf, CDC recommendation, pp 3-4

Problem: Complex Ongoing Management

40-60% Average relapse rate amongst drug abusers in the U.S.[1]



No evidence of MAT following opioid use disorder, dependence or previous overdose[2]



Patients who overdose receive an opiate Rx within 10 months[3]

[1] NIH: A Research-Based , Guided14rmgtrwzf5a.cloudfront.net/sites/default/files/soa_2014.pdf, Comparison of relapse rate between drug addiction and other chronic illnesses, pp 26
[2] Pharmacy benefit manager CY'16 commercial managed care medical and pharmacy claims data
[3] ACP: Opioid Prescribing After Nonfatal Overdose and Association With Repeated Overdose: A Cohort Study, www.annals.org/aim/article-abstract/2479117/opioid-prescribing-after-nonfatal-overdose-association-repeated-overdose-cohort-study Ann Intern Med, Results, 2016; 164:1-9

Solution: Support Chronic Populations and Recovery

1. Expanded access to emergency/rescue medications to treat overdose
   Remove impediments for emergency rescue therapy (e.g. naloxone)
2. Unrestricted access to all MAT (medication-assisted treatment) options
   (e.g. buprenorphine, naltrexone, methadone)
3. Drug level lock-in to prescriber and/or pharmacy
   Intensive case management review and restriction of high-risk opioid users
4. Post-treatment relapse prevention
   Advanced concurrent drug utilization monitoring on opioid use in patients actively engaged in MAT therapy

Opioid Use Disorder (OUD)

Substance Use Disorders (SUDs) Are Difficult to Treat

Only one in 10 individuals receives treatment[1]

Stigma stops people from exploring treatment options	Treatment facilities have been biased against using any medications	Inconsistency in provider expertise	SUD/OUD is a chronic disease and must be treated like one

[1] HHS: The Surgeon General's Report on Alcohol, Drugs, and Health, facing addiction in America, Washington, DC: HHS, November 2016, addiction.surgeongeneral.gov/sites/default/files/chapter-4-treatment.pdf, Key Findings, section 4, pp 2

Standard Treatment Protocols Fall Short

Medication-Assisted Treatment (MAT)

Traditional therapies like detox-to-abstinence treatment does not address cravings – a major cause of relapse:

- Greater risk for overdose due to lower tolerances
- SUD treatment requires multiple streams of care
- Success is dependent on personalized care

MAT Program

Takes a chronic condition approach by understanding there are multiple streams of care needed to address multiple conditions.

MAT Plays Critical Role for Those with Opioid Use Disorder (OUD)

It is the most effective intervention to treat OUD and is more effective than either behavioral intervention or medication alone.

What exactly is MAT Program

Pairs therapies, such as counseling or cognitive behavioral therapy, with an FDA-approved medication to treat substance use disorders and prevent opioid overdose.

- Methadone
- Buprenorphine
- Naltrexone

UpToDate: Pharmacotherapy for opioid use disorders, www.uptodate.com/contents/pharmacotherapy-for-opioid-use-disorder?search=Opioid%20MAT&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

Medication-Assisted Treatment Programs

Need for MAT Significantly Exceeds Capacity	Meeting MAT Network Demand

Physicians are not prescribing…

- Only 3.5% of 900,000 U.S. physicians can write prescriptions for opioid analgesics have obtained DATA 2000 waiver to prescribe buprenorphine – and only fraction of those licensed actually prescribe it.[1]

- Only 23% of public and < 50% of private-sector treatment program offer any FDA-approved medications to treat SUD/OUD (2017).[2]

1,744 MAT Providers and 3,747 locations nationally and expanding

- Utilizing large PBM data source, and working closely with providers to identify in what neighborhoods and communities treatment facilities are needed.
- Proprietary quality requirements to become a MAT provider.[3]

[1] Pew Trusts: www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2016/01/15/few-doctors-are-willing-able-to-prescribe-powerful-anti-addiction-drugs, introduction, Jan 15, 2016
[2] Pew Trusts: www.pewtrusts.org/en/research-and-analysis/fact-sheets/2017/02/the-case-for-medication-assisted-treatment, treatment gap, Jan 15, 2016
[3] Source: Pharmacy Benefit Manager Commercial Managed Care Medical and Pharmacy Claims Data, 2016

Accountability

Government

Public

PBMs

Clients

Health Plans

Drug Manufacturers

Providers

We are all accountable and thus all part of the solution

Helpful Links

1. **CDC: Helpful Materials for Patients**
   www.cdc.gov/drugoverdose/patients/materials.html

2. **CDC: Information for Providers**
   www.cdc.gov/drugoverdose/providers/index.html

3. **CAPT Decision-Support Tools, Preventing Prescription drug Misuse, Understanding Who Is at Risk**
   www.samhsa.gov/capt/sites/default/files/resources/preventing-prescription-drug-misuse-understanding.pdf

4. **U.S. General Accounting Office Report to Congressional Requesters**
   www.gao.gov/new.items/d04110.pdf

5. **NIH Chart of Evidence-Based Screening Tools for Adults and Adolescents**
   www.drugabuse.gov/nidamed-medical-health-professionals/tool-resources-your-practice/screening-assessment-drug-testing-resources/chart-evidence-based-screening-tools-adults

Thank You.

Questions? Contact OptumHealth Education at
moreinfo@optumhealtheducation.com

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Center for Application of Prevention Technologies Decision-Support Tools (CAPT): www.samhsa.gov/capt/sites/default/files/resources/preventing-prescription-drug-misuse-understanding.pdf, Updated May 2016, Accessed 4/23/2018.

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