

THE OPIOID EPIDEMIC

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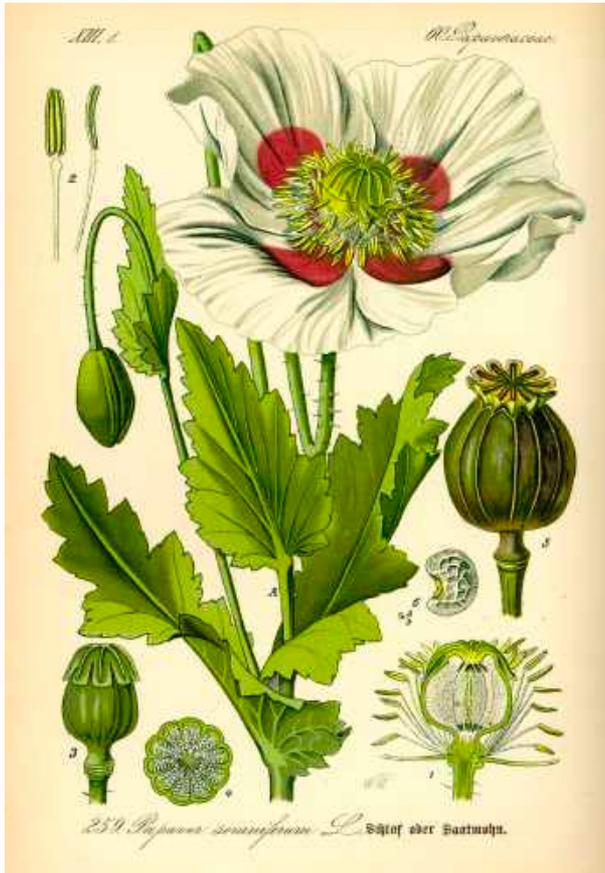
National Center for
WELLNESS & RECOVERY
OKLAHOMA STATE UNIVERSITY

Objectives

- **Understand the history of opioid epidemics in the US**
- **Understand the severity of the current opioid epidemic**
- **Understand facts/statistics surrounding the opioid epidemic**
- **Understand treatment efforts to combat the opioid epidemic**



Opioids



Opium Poppy
Flower

Codeine

Morphine

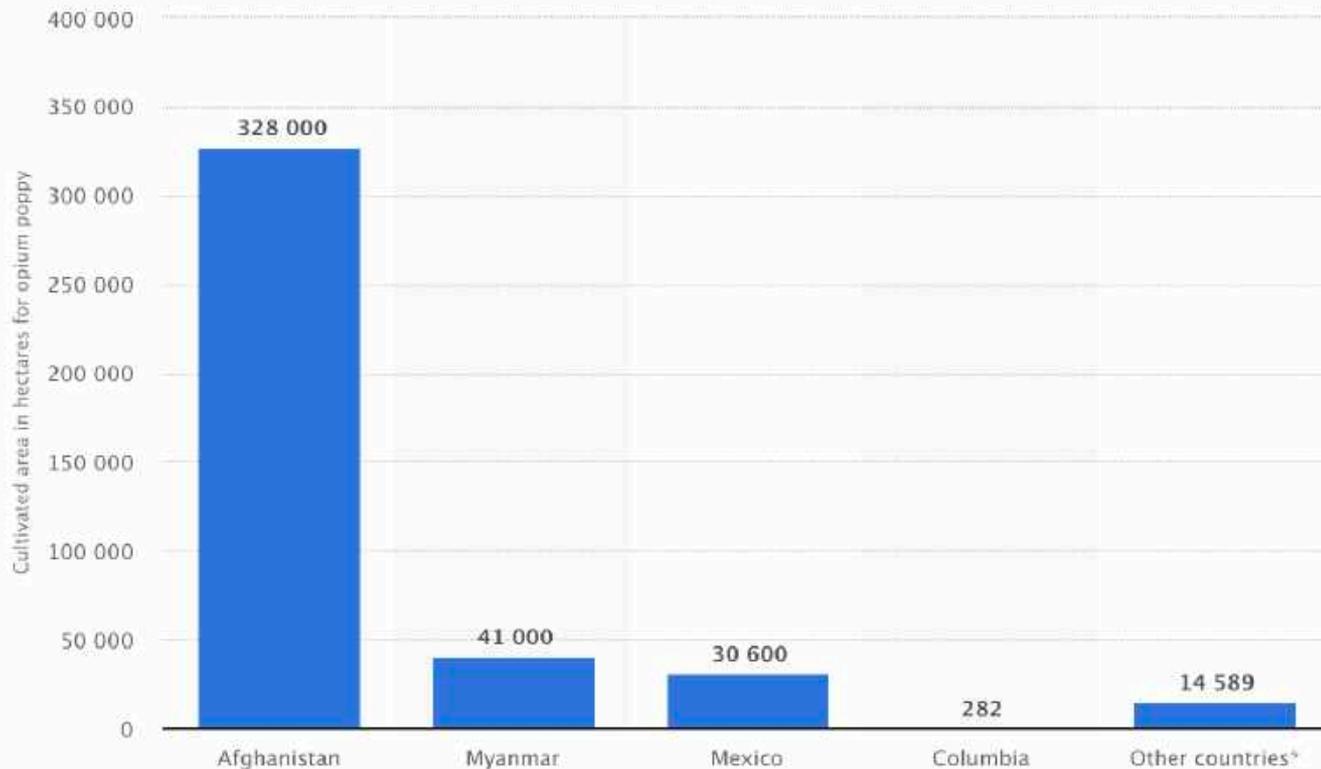
Thebaine

Others





Opium Cultivation by Country 2017



Opium Uses

Recreational



Medicinal



"Cure sometimes, treat often, comfort always."

- Hippocrates



Opioid Epidemics in the U.S.

1st: 1890's

2nd: 1970's

3rd: Current



First Opioid Epidemic

- Morphine discovered in 1823
- Hypodermic needle invented around 1865
- Heroin discovered in 1874



The Oklahoman

- In 1919, Oklahoma City Mayor Walton implored citizens to gather at the Chamber of Commerce one Friday night in August to discuss the narcotics situation he termed as evil. **“The evil is growing rapidly.”**
- The Oklahoman reported, ***“Representatives of all civic organizations, a physicians’ board, members of the Ministerial alliance, lawyers, Governor J.B.A. Roberson and other state officials, and representative business men will be invited to attend the meeting. The narcotics situation is so serious it demands the immediate attention of the citizens.”***
- Walton was calling the meeting because he saw **a pattern of drug addicts being arrested, placed in the city jail, fined and released. He was pleading with citizens to contribute money to help fund treatment options,** The Oklahoman reported.



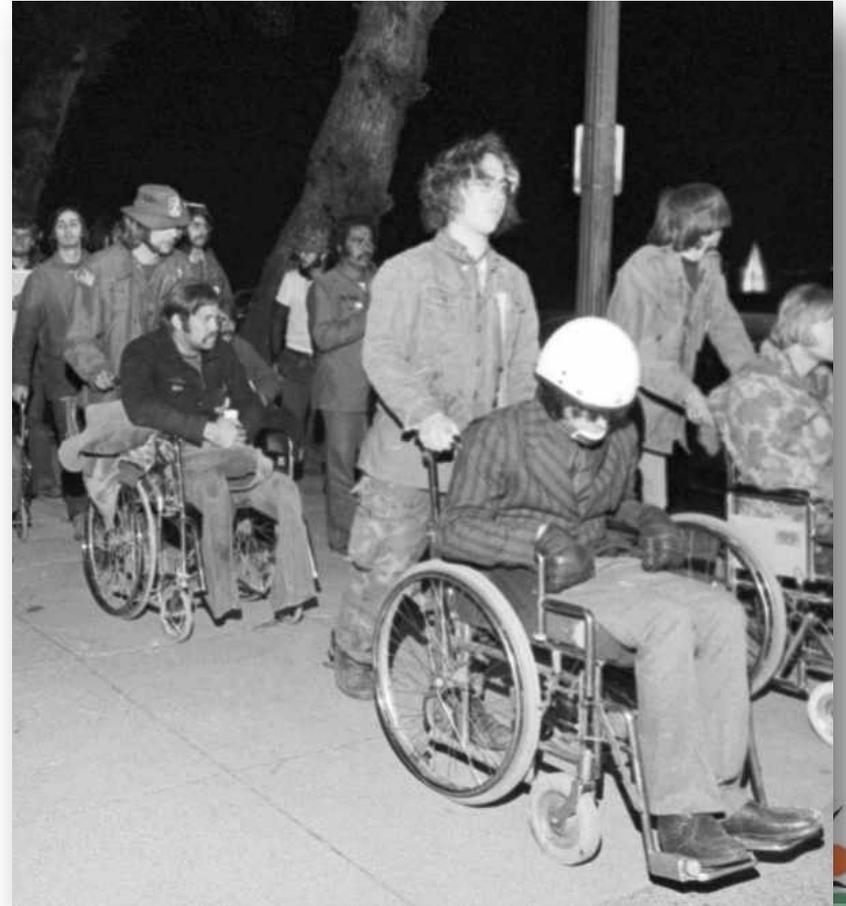
First Opioid Epidemic

- By 1900 there were an estimated 250,000 opioid addicted individuals in the U.S.
- Morphine maintenance clinics were established in 44 cities across the United States
- Importation of smoking opium prohibited in 1909
- Harrison Narcotics Tax Act of 1914 made it illegal to prescribe opioids for maintenance of addiction



Second Opioid Epidemic

- **Returning soldiers from Vietnam**
- **Largely heroin**
- **Dr. Vincent Dole published a paper on the efficacy of methadone maintenance in 1965, which lead to the legalization of methadone maintenance treatment by the FDA in 1972**



The Current Epidemic



1980s

- **Two simultaneous events occurred at the same time:**
 - 1. Development of novel narcotic analgesics by drug manufacturers**
 - 2. The legitimate and necessary development of hospice and palliative care and pain management specialties driven by the medical community**
- **Pharmaceutical companies took advantage of the physician movement and hijacked it for their own profits**



The Beginning

Vol. 302 No. 2

CORRESPONDENCE

123

ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients¹ who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients,² Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

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1. Jick H, Miettinen OS, Shapiro S, Lewis GP, Slakind Y, Stone D. Comprehensive drug surveillance. *JAMA*. 1970; 213:1455-60.
2. Müller RR, Jick H. Clinical effects of meperidine in hospitalized medical patients. *J Clin Pharmacol*. 1978; 18:180-8.

PROGNOSTIC VALUE OF IMMUNOLOGIC MARKERS IN ADULTS WITH ACUTE LYMPHOBLASTIC LEUKEMIA

To the Editor: The letter from Dr. Bitran¹ has raised an important but as yet unsettled question about prognostic factors in acute lymphoblastic leukemia in adults. On the basis of experience with 13 patients, Dr. Bitran suggested that adults with T-cell disease could have a limited survival and a lower rate of remission than those with B-cell disease. From January, 1974, to June, 1979, we studied 42 consecutive adults (more than 12 years old) with acute lymphoblastic leukemia for sheep-erythrocyte rosette formation and surface immunoglobulins. Patients were classified as having T-cell disease if they had more than 40 per cent of marrow blast cells forming E-rosettes, or B-cell disease if they were positive for surface immunoglobulins. Details on the techniques have been reported elsewhere.² There were 31 patients with null-cell leukemia, eight with T-cell leukemia, and four with B-cell leukemia. All patients were

17,000 U per square meter daily). Patients who had complete remissions (except for three over 60 years of age) received central-nervous-system therapy (2400 rads to the skull, with five intrathecal injections of methotrexate or arabinosyl cytosine, or both). During complete remission, they were given 6-mercaptopurine (70 mg per square meter daily), methotrexate (25 mg per square meter each week), and courses of vincristine and prednisone every three to four months.

Results are shown in Table 1. They do not support the suggestion by Dr. Bitran that in adults with acute lymphoblastic anemia, T-cell leukemia has a poorer prognosis than B-cell disease. However, because of the limited number of cases and the short follow-up, the present data are far from definitive. More information on this point is needed. The identification of prognostic factors in acute lymphoblastic anemia in adults is critical, not only for the choice of induction therapy but also because young adults with an established poor prognosis could profit from allogeneic-marrow transplantation during the first remission. Therefore, we suggest that for the time being it may be wiser to base prognosis on more established criteria, such as age and blast-cell count in the blood.³

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1. Bitran JD. Prognostic value of immunologic markers in adults with acute lymphoblastic leukemia. *N Engl J Med*. 1978; 299:1317.
2. Ruggero D, Baccarani M, Gobbi M, Tura S. Adult acute lymphoblastic leukaemia: study of 32 patients and analysis of prognostic factors. *Scand J Haematol*. 1979; 22:154.

DECREASED KETOGENESIS DUE TO DEFICIENCY OF HEPATIC CARNITINE ACYL TRANSFERASE

To the Editor: In 1970 Engel reported in the *Journal* a disorder of the skeletal muscle without fasting hyperketonemia and with a normal increase in ketone bodies after oral medium-chain triglycerides.¹ He suggested a possible defect in the use of long-chain fatty acids. Usually, fasting is associated with hyperketonemia except in hyperinsulinemic states. Hyperketonemia results from the release of long-chain fatty acids from adipose tissue and their intrahepatic channeling toward mitochondrial oxidation and ketogenesis. The



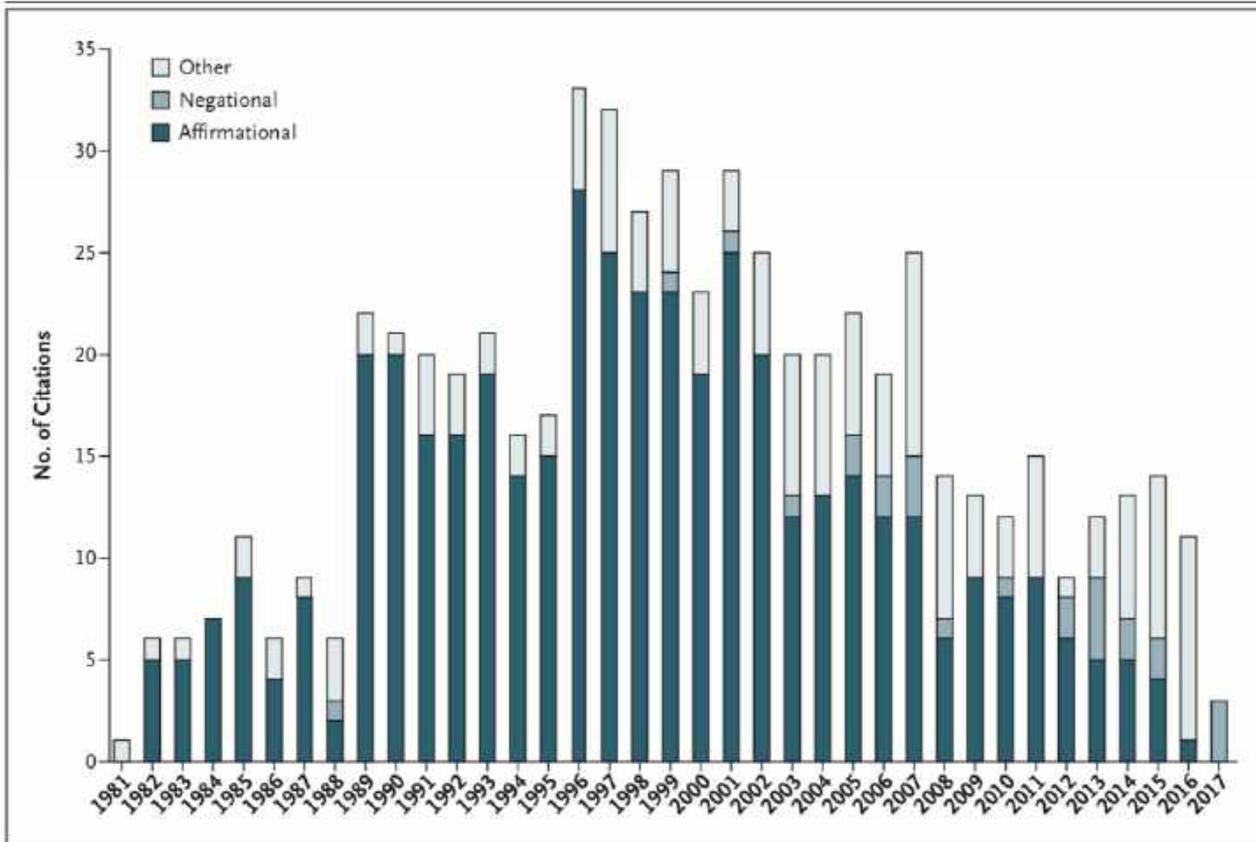


Figure 1. Number and Type of Citations of the 1980 Letter, According to Year.

Shown are number of citations of a 1980 letter to the *Journal* in which the correspondents claimed that opioid therapy rarely resulted in addiction. The citations are categorized according to whether the authors of the articles affirmed or negated the correspondents' conclusion about opioids. Details about "other" citation categories are provided in Section 2 in the Supplementary Appendix.



1990s

- **Aggressive Industry Marketing of Opioid Products in the late 1990s/early 2000s**
 - Opioid phobia and the needless suffering of patients
 - Opioid addiction is rare if pain is managed appropriately
 - Opioids can be easily discontinued



5th Vital Sign



Consensus Statement

Quality Improvement Guidelines for the Treatment of Acute Pain and Cancer Pain

American Pain Society Quality of Care Committee

Objective.—To develop quality improvement (QI) guidelines and programs to improve treatment outcomes for patients with acute pain and cancer pain.

Participants.—Twenty-four members of the American Pain Society (APS) participated in preparing the statement, including 15 nurses (oncology, general medical-surgical nursing, pediatrics, and QI research), seven physicians (clinical pharmacology, neurology, anesthesiology, radiation oncology, and psychiatry), one psychologist, and one statistician. Participants were self-selected from the 2000 members of the APS, which supported the process and held annual open committee meetings and scientific symposia beginning in 1986.

Evidence.—MEDLINE was searched (1980 to 1995) to identify all articles on pain assessment, treatment of acute pain or cancer pain, and QI or education related to pain.

Consensus Process.—Following panel discussions, one member (M.B.M.) prepared successive drafts and circulated them to the panel and APS membership for comments. After publication of a prototype version in 1991, 14 panels carried out formal studies of implementation of the guidelines at three medical centers. This article was prepared based on the research, a new literature review, and suggestions from 50 pain clinicians and researchers.

Conclusions.—Quality improvement programs to improve treatment of acute pain and cancer pain should include five key elements: (1) Assuring that a report of unrelieved pain raises a "red flag" that attracts clinicians' attention; (2) making information about analgesics convenient where orders are written; (3) promising patients responsive analgesic care and urging them to communicate pain; (4) implementing policies and safeguards for the use of modern analgesic technologies; and (5) coordinating and assessing implementation of these measures. Several short-term studies suggest that this QI approach may improve patient satisfaction and facilitate recognition of institutional obstacles to optimal pain treatment, but it is not a panacea for undertreated pain. By making the magnitude of the problem apparent and committing the institution to change, pain treatment QI programs can provide a foundation for a multifaceted approach that includes education of clinicians and patients, design of informational tools to minimize errors in prescribing, and improved coordination of the process of assessing and treating pain.

JAMA. 1998;279:1874-1888.

UNDERTREATMENT of acute pain and chronic cancer pain persists despite decades of efforts to provide clinicians

with information about analgesics. A high prevalence of unrelieved pain has been documented in a variety of clinical settings, including general medical^{1,2} and surgical units,^{3,4} oncology wards and clinics,^{5,6} burn units,⁷ emergency departments,⁸ and pediatric wards.⁹ In response to this problem, clinicians have identified factors that contribute to poor

treatment outcomes and have designed corrective programs.¹⁰ The barriers to pain relief include gaps in physicians' and nurses' undergraduate and graduate education about pain treatment,^{11,12} concerns of clinicians¹³ and patients¹⁴ about the risk of addiction to opioids, state and federal regulation of the prescribing of opioid analgesics,^{15,16} and reimbursement policies for analgesic treatments.¹⁷

See also pp 1870 and 1881.

During the decade following the article by Marx and Starke¹⁸ that called attention to undertreatment of pain, most recommendations stressed the need to educate individual clinicians and patients, imparting knowledge about methods of relieving pain and the low risks of addiction.^{19,20} Although experts agree that such educational approaches are essential, several studies have focused on the problem that pain may frequently go unrecognized by clinicians.²¹⁻²⁴ Doucette et al²¹ showed that among 614 randomly selected patients on the medical and surgical units of a midwestern academic hospital, 76% reported having experienced pain during hospitalization and 48% reported having had excruciating pain. Of the patients with pain, only 45% recalled a nurse discussing their pain with them, and in only 49% of charts was there a progress note mentioning pain. Grossman et al²² asked the responsible nurse, house officer, and oncology fellow to estimate each of 104 cancer patients' pain using a 10-cm visual analog scale. For the 18 patients who rated their pain in the most severe range (>7 of a possible 10), only one of the nurses, three of the house officers, and four of the oncology fellows estimated the patient's pain in that range.

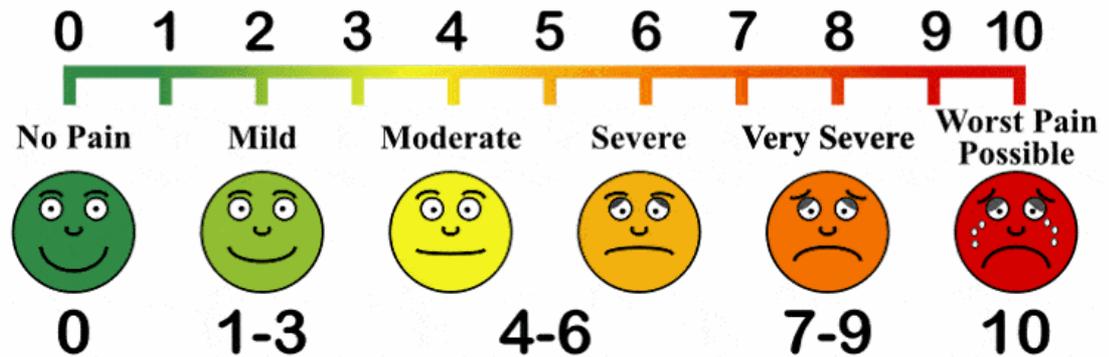
A list of the members of the American Pain Society Quality of Care Committee appears at the end of this article. Reprint requests to the American Pain Society, 4100 W. Lake Ave., Glenview, IL 60025-1466.



5th Vital Sign

I. Recognize and Treat Pain Promptly

IA. Chart and Display Patients' Self-report of Pain.—A measure of pain intensity should be recorded in a way that makes it highly visible and facilitates regular review by members of the health care team. This information should be incorporated in the patient's permanent record. The data can be recorded on a vital sign sheet at the patient's bedside (Figure), a page at the front of the patient's record, or a chart in the nursing station or outpatient clinic, depending on the routine work flow of the health care team. Unrelieved pain should be a "red flag" that promptly turns attention to this problem.



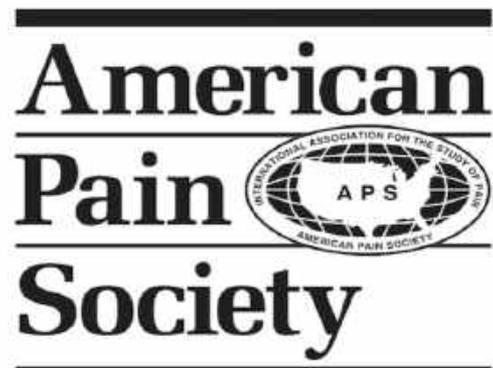
The Clinical Journal of Pain. 13(1):6-8, MAR 1997

PMID: 9084947

MEDLINE Status: MEDLINE

Issn Print: 0749-8047

The use of opioids for the treatment of chronic pain. A consensus statement from the American Academy of Pain Medicine and the American Pain Society.



IV. Current information and experience suggest that many commonly held assumptions need modification

Addiction

Misunderstanding of addiction and mislabeling of patients as addicts result in unnecessary withholding of opioid medications. Addiction is a compulsive disorder in which an individual becomes preoccupied with obtaining and using a substance, the continued use of which results in a decreased quality of life. Studies indicate that the de novo development of addiction when opioids are used for the relief of pain is low. Furthermore, experience has shown that known addicts can benefit from the carefully supervised, judicious use of opioids for the treatment of pain due to cancer, surgery, or recurrent painful illnesses such as sickle cell disease.



	Purdue ²²	Janssen ²³	Depomed	Insys	Mylan	Total
Academy of Integrative Pain Management	\$1,091,024.86	\$128,000.00	\$43,491.95	\$3,050.00 ²⁴	\$0.00	\$1,265,566.81
American Academy of Pain Medicine	\$725,584.95	\$83,975.00	\$332,100.00	\$57,750.00	\$0.00	\$1,199,409.95
AAPM Foundation	\$0.00	\$0.00	\$304,605.00	\$0.00	\$0.00	\$304,605.00
ACS Cancer Action Network	\$168,500.00 ²⁵	\$0.00	\$0.00	\$0.00	\$0.00	\$168,500.00
American Chronic Pain Association	\$312,470.00	\$50,000.00	\$54,670.00	\$0.00	\$0.00	\$417,140.00
American Geriatrics Society	\$11,785.00 ²⁶	\$0.00	\$0.00	\$0.00	\$0.00	\$11,785.00
American Pain Foundation	\$25,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$25,000.00
American Pain Society	\$542,259.52	\$88,500.00	\$288,750.00	\$22,965.00	\$20,250.00	\$962,724.52
American Society of Pain Educators	\$30,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30,000.00
American Society of Pain Management Nursing	\$242,535.00	\$55,177.85 ²⁷	\$25,500.00 ²⁸	\$0.00	\$0.00	\$323,212.85
The Center for Practical Bioethics	\$145,095.00	\$18,000.00	\$0.00	\$0.00	\$0.00	\$163,095.00
The National Pain Foundation ²⁹	\$0.00	\$0.00	\$0.00	\$562,500.00	\$0.00	\$562,500.00
U.S. Pain Foundation	\$359,300.00	\$41,500.00	\$22,000.00	\$2,500,000.00 ³⁰	\$0.00	\$2,922,800.00
Washington Legal Foundation	\$500,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$500,000.00
	\$4,153,554.33	\$465,152.85	\$1,071,116.95	\$3,146,265.00	\$20,250.00	\$8,856,339.13



TM

Oxycontin Sales

OxyContin sales

\$3 billion

2

1

0

'96

'98

'00

'02

'04

'06

'08

'10

'12

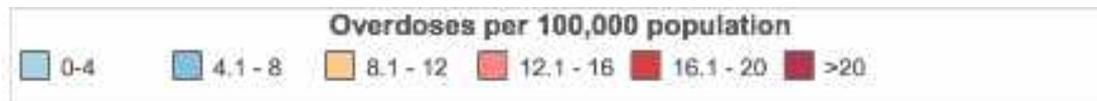
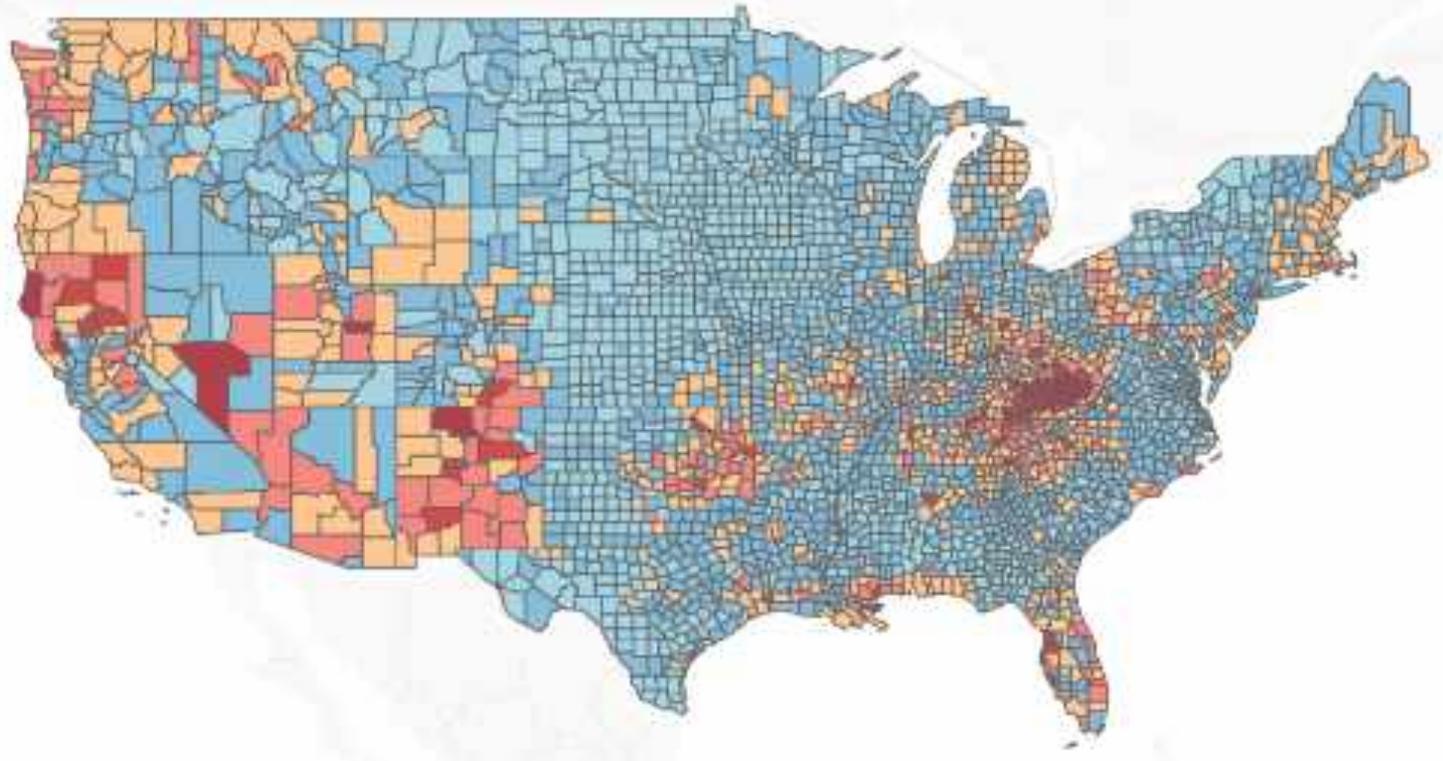
'14

Source: IMS National Sales Perspectives

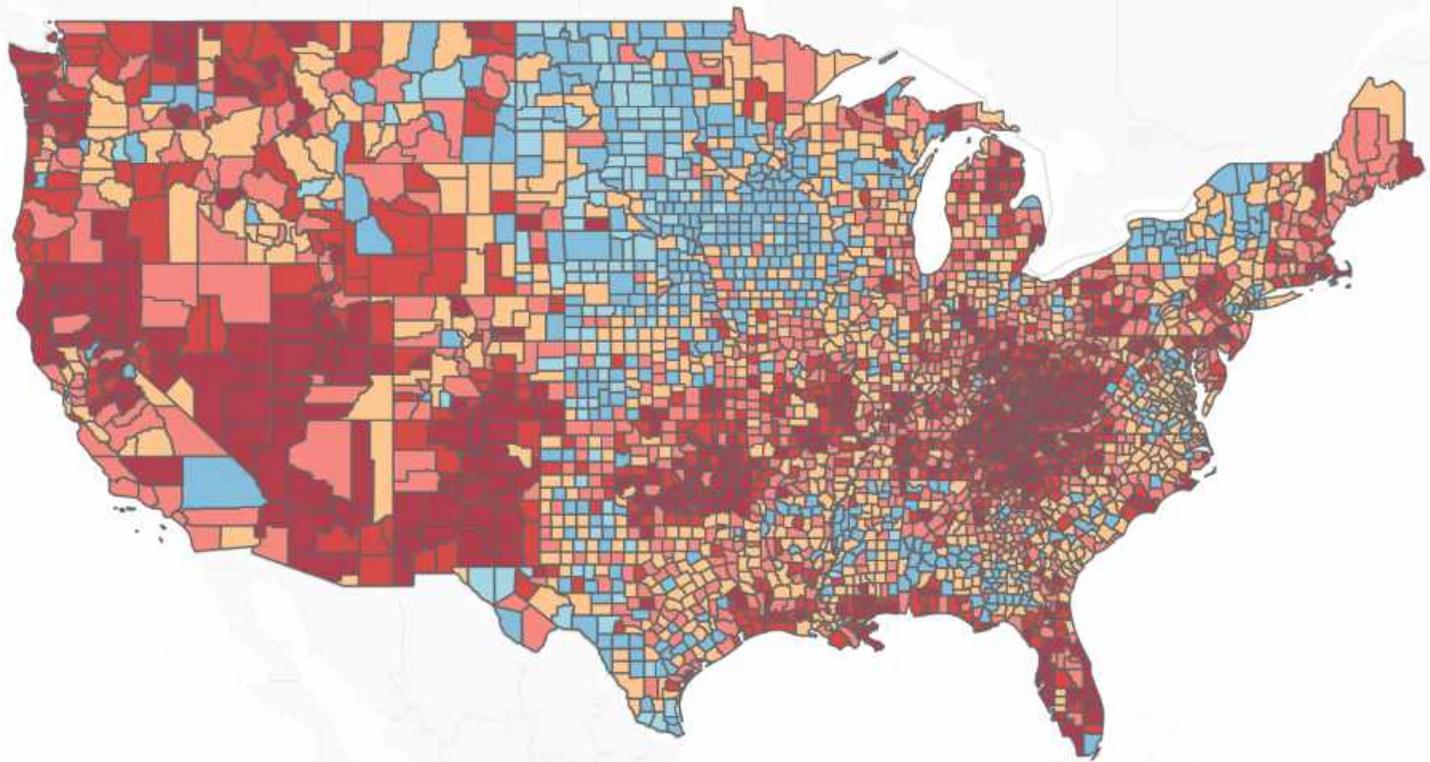
Graphic: Los Angeles Times/TNS



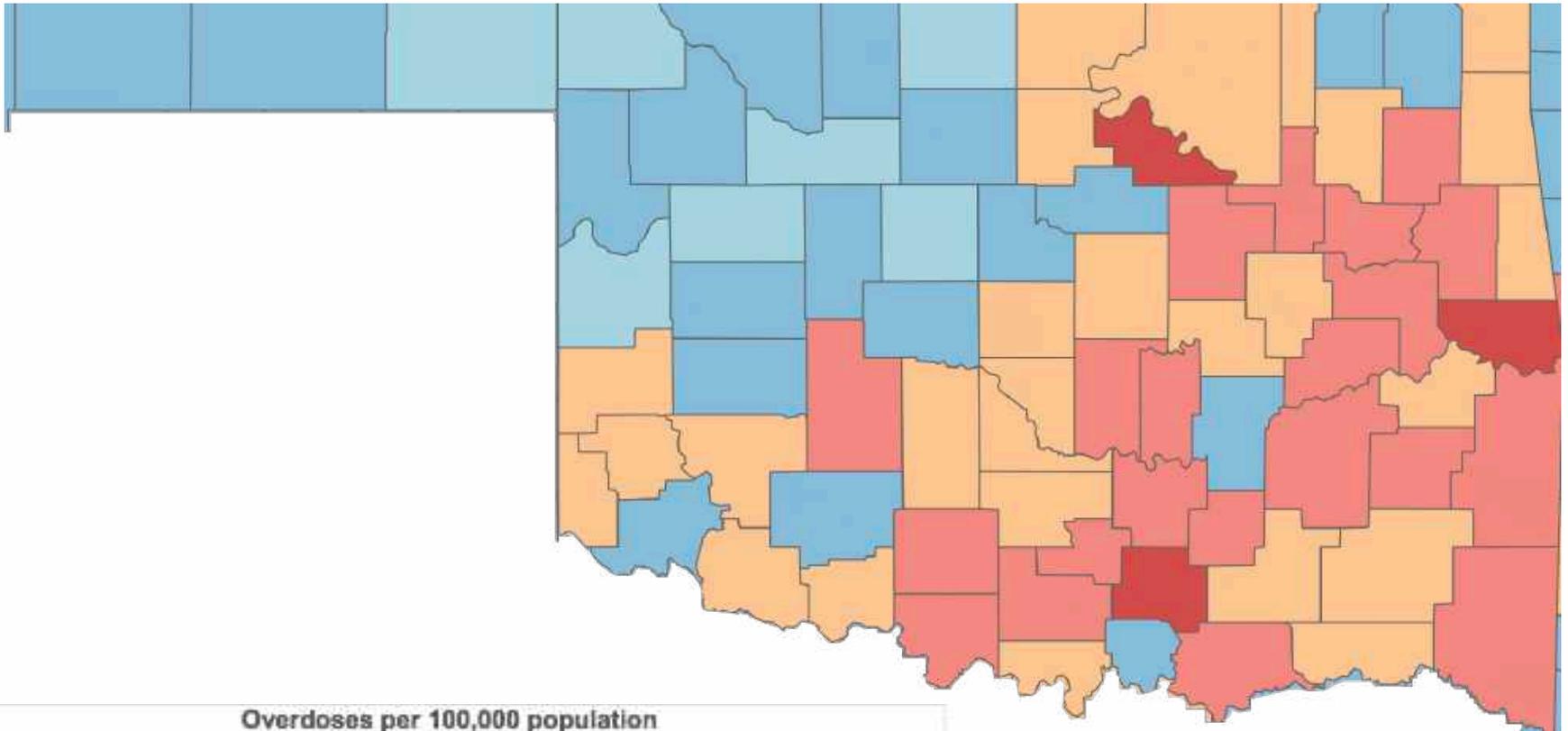
Overdoses 2002



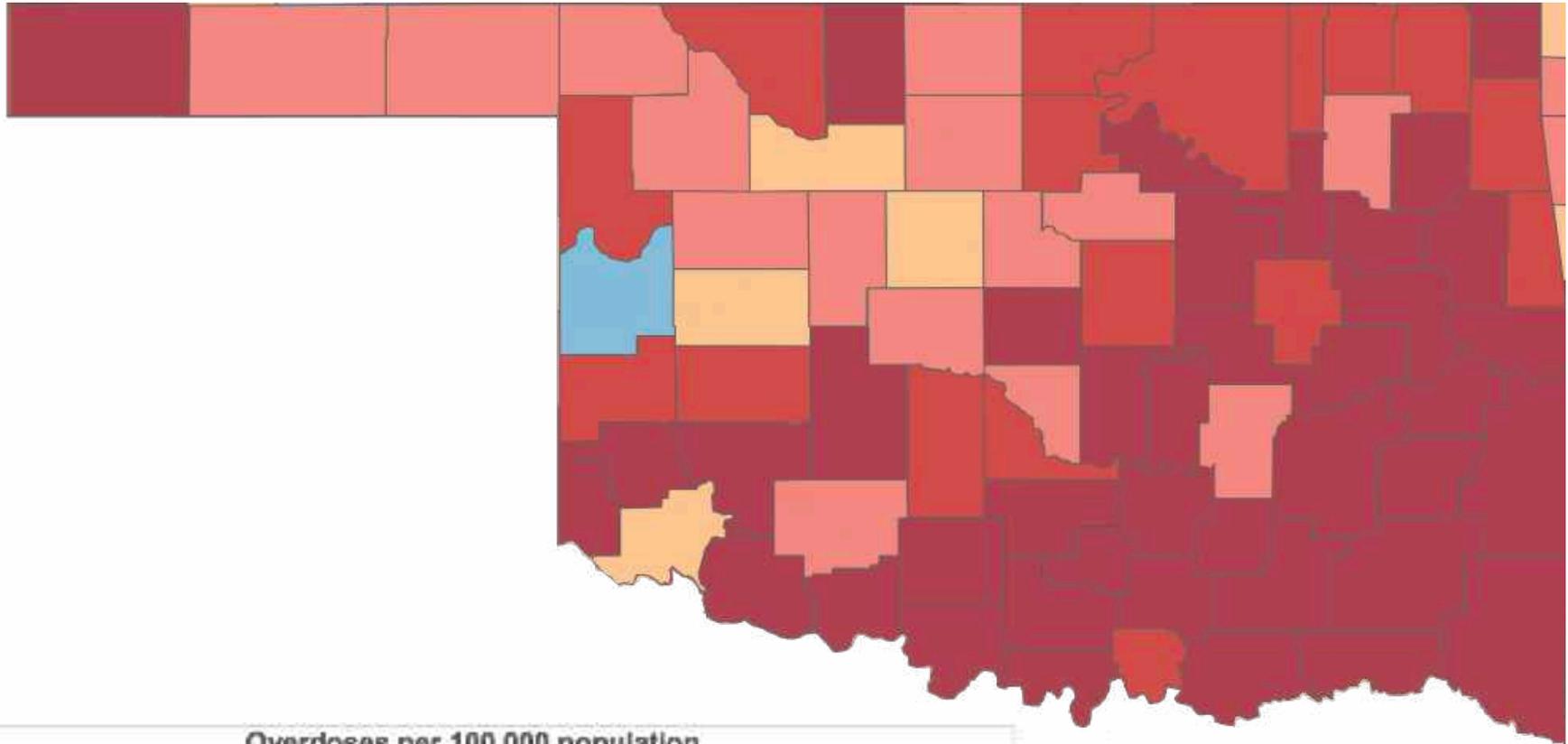
Overdoses 2014



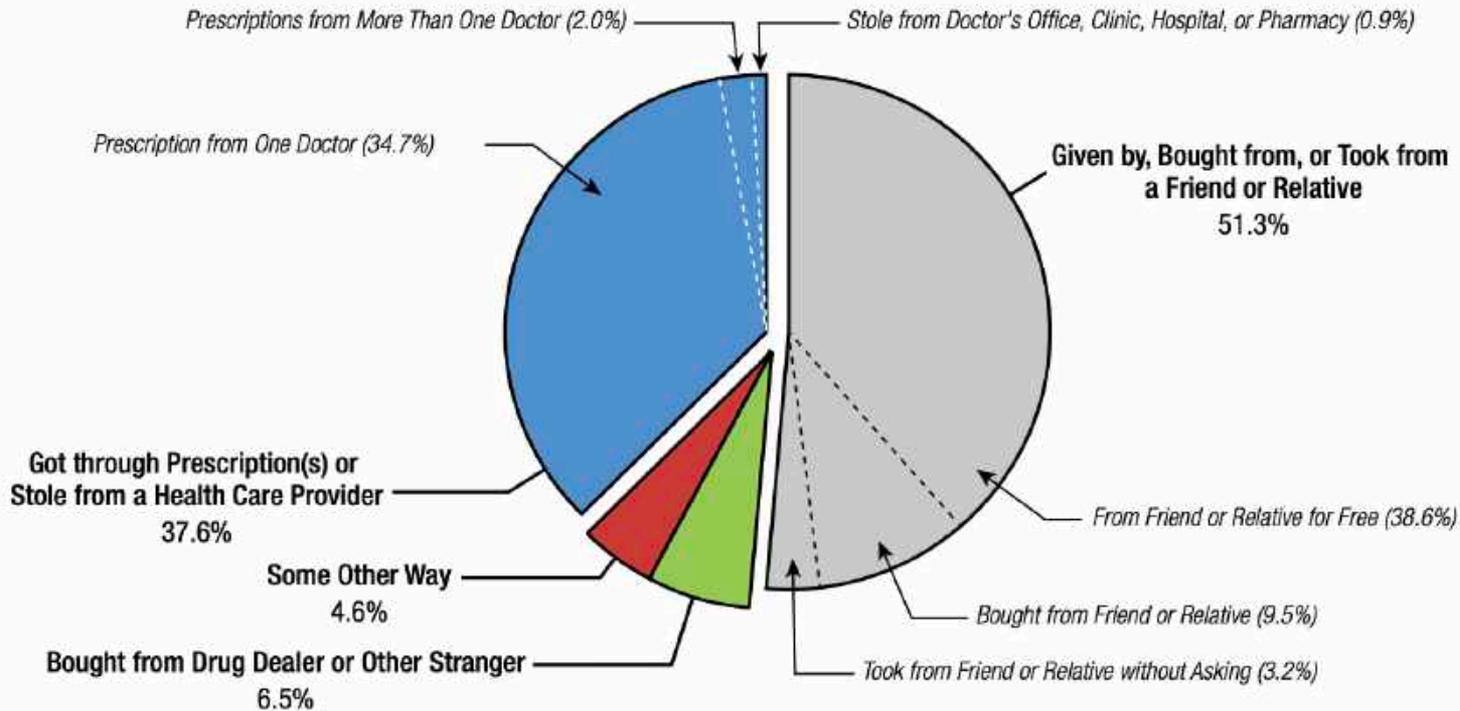
Oklahoma Overdose 2002



Oklahoma Overdose 2014



Sources of where Prescription Pain Relievers were Obtained in 2018

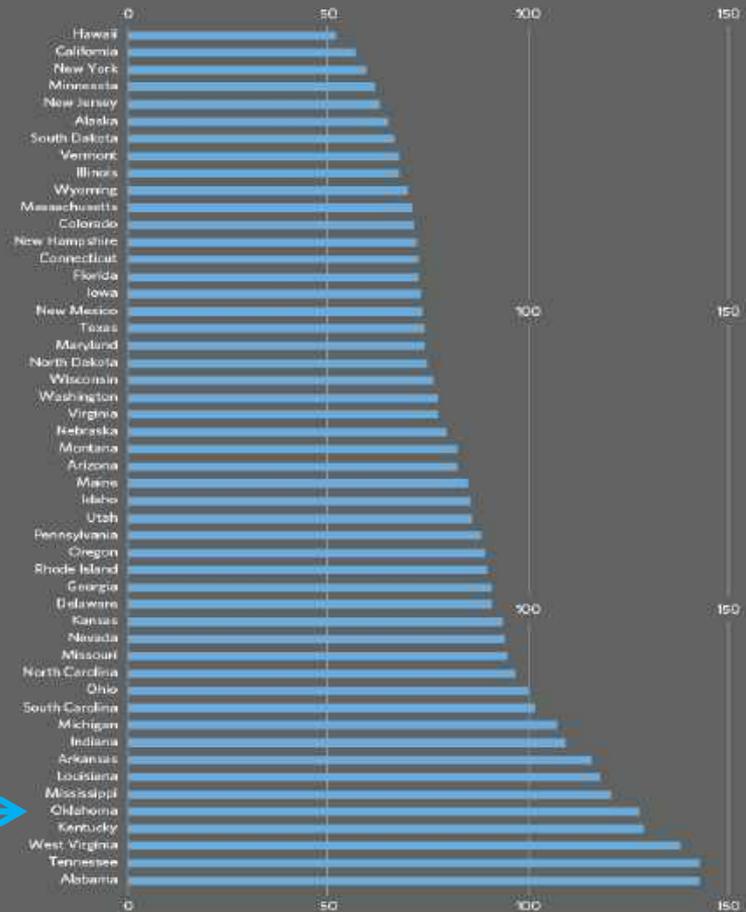


9.9 Million People Aged 12 or Older Who Misused Pain Relievers in the Past Year

Painkiller Prescriptions

The number of painkiller prescriptions varies widely by state, from 52 per 100 people in Hawaii to 142.9 per 100 people in Alabama. New federal guidelines aim to reduce excessive painkiller prescribing, which has contributed to an epidemic of opioid addiction and overdose deaths.

■ Painkiller prescriptions per 100 people



Source: U.S. Centers for Disease Control and Prevention
© 2016 The Pew Charitable Trusts

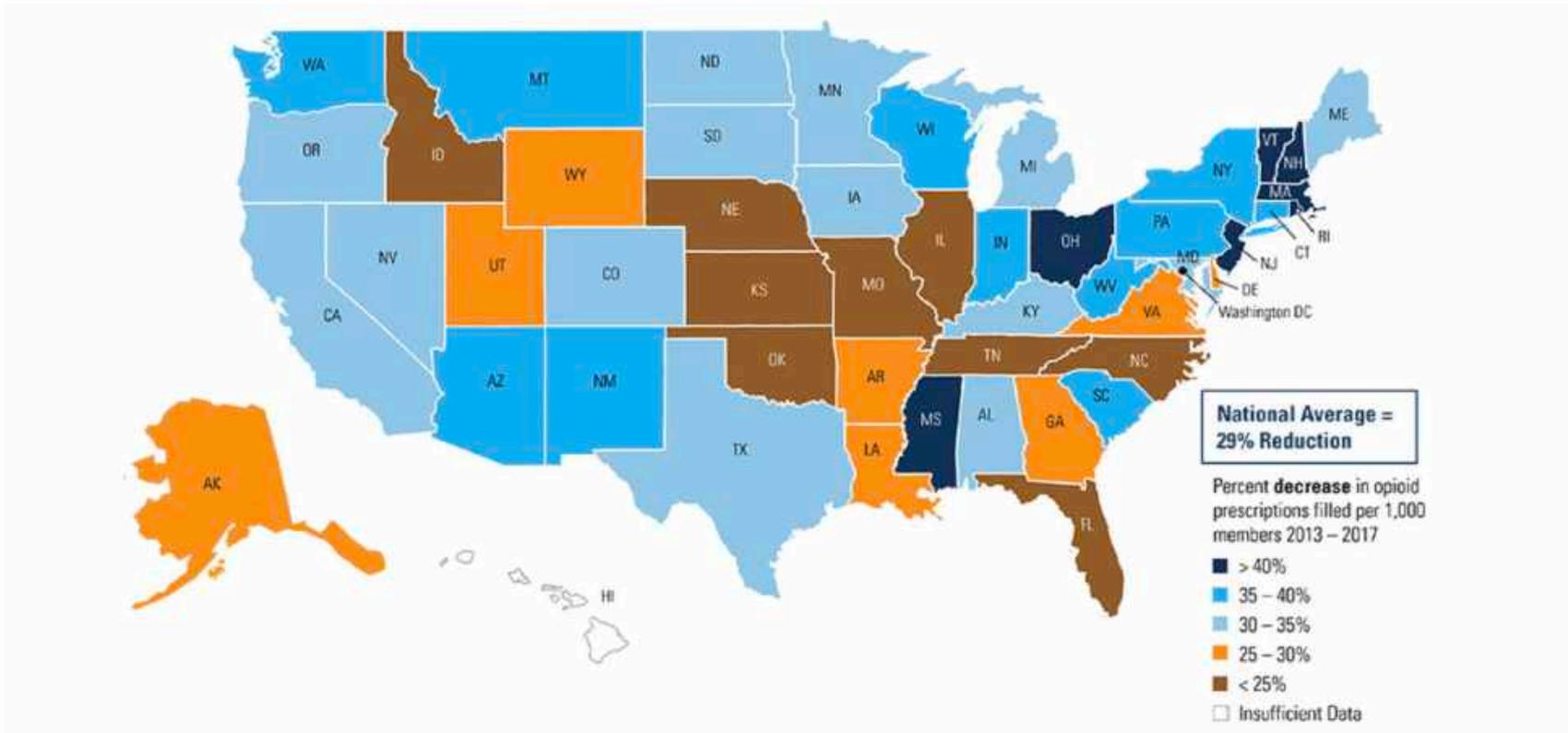
OK County Prescribing Rates per 100

County	2007
Pittsburg	205.9
Carter	199
Pottawatomie	161
Muskogee	155.8
Tulsa	154.1
Beckham	148.9
Custer	144.4
Stephens	142.4
Oklahoma	140.5
Woodward	134.2

County	2018
Harmon	174.2
Carter	141.1
Stephens	127.8
Pittsburg	126.8
Murray	121.7
Pottawatomie	117.8
Muskogee	112
McClain	109.9
Bryan	109.6
Kingfisher	108.4



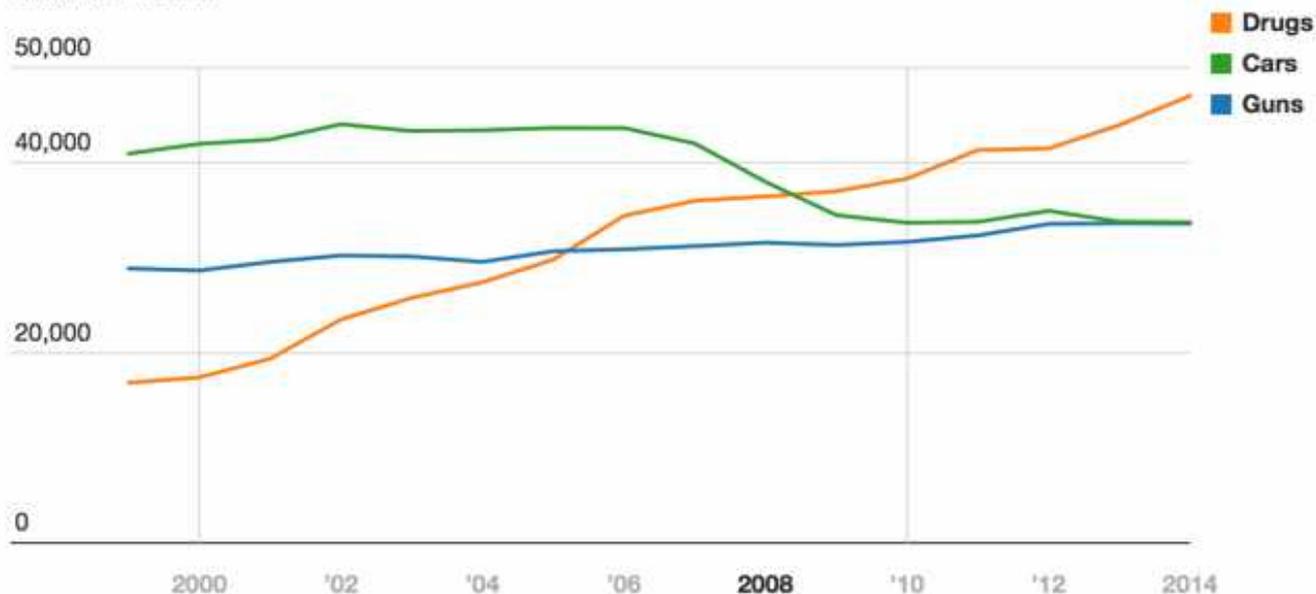
Opioid Prescription Fill Rate Decline 2013-2017



US Causes of Deaths

Deaths From Drug Overdoses, Car Accidents, and Gun Violence

From 1999 to 2014

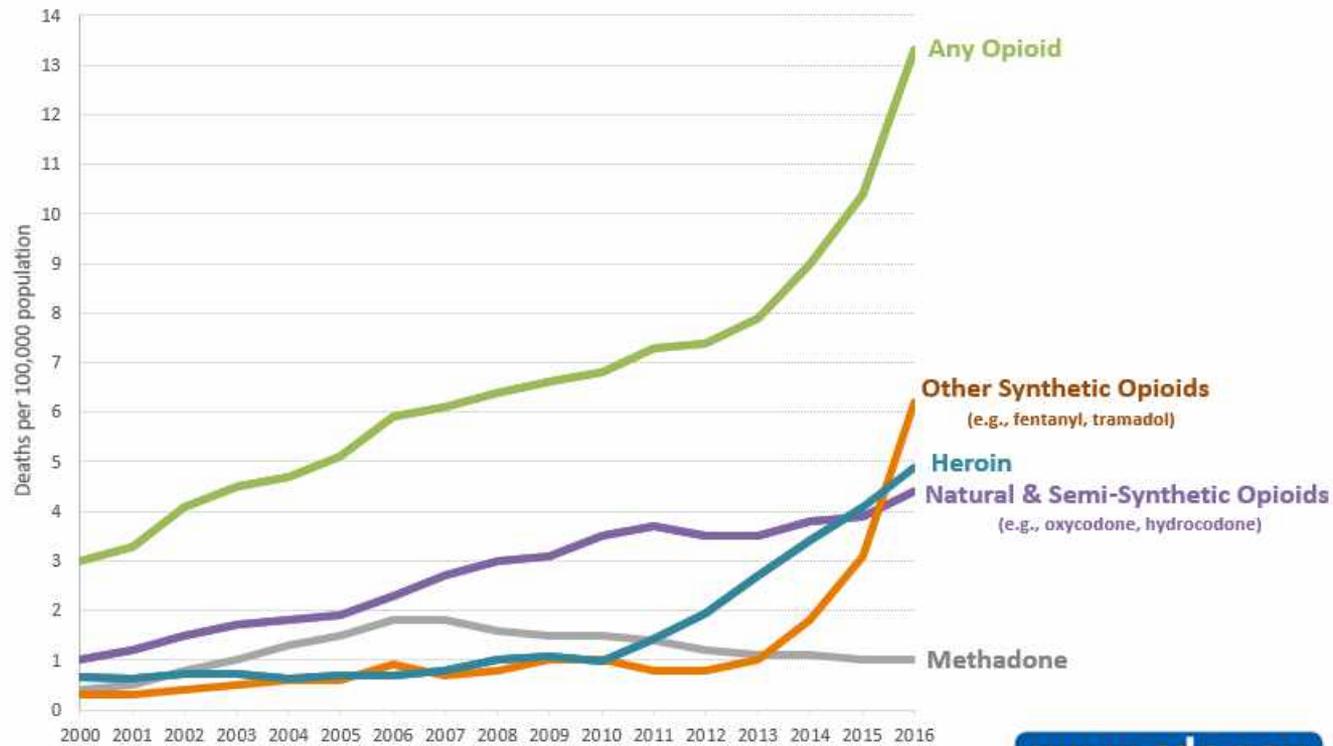


Source: Centers for Disease Control and Prevention [Get the data](#)



Waves of the Current Epidemic

Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2016



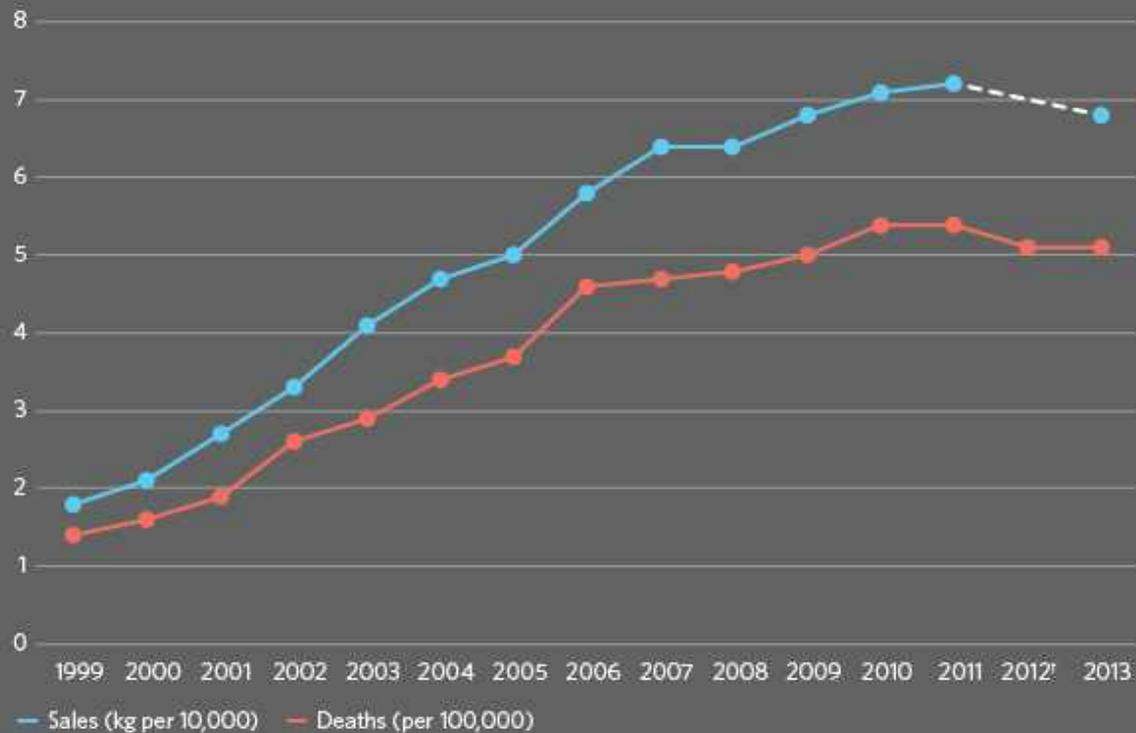
SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2017. <https://wonder.cdc.gov/>.

www.cdc.gov
Your Source for Credible Health Information



Painkiller Sales and Overdose Deaths

The nation's rising overdose death rate from painkillers such as Vicodin, Percocet and OxyContin closely parallels an increase in opioid prescription sales over the past 15 years.



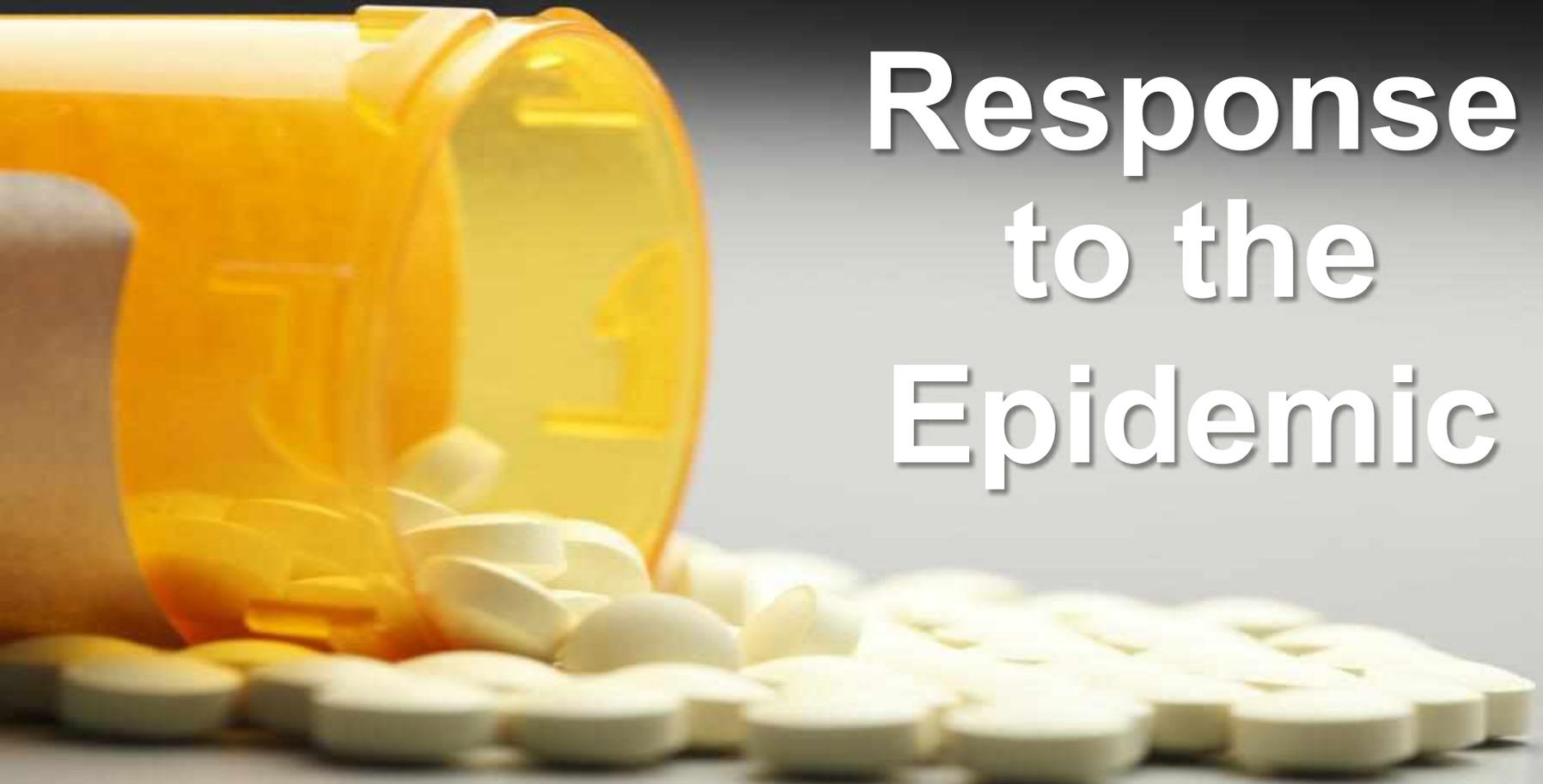
† Sales data is unavailable for 2012.

Source: U.S. Drug Enforcement Administration and Centers for Disease Control and Prevention

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Response to the Epidemic



OK Senate Bill 1446

- **Require continuing medical education (CME) for prescribers on opioid abuse and misuse each year**
- **Restricts initial prescriptions for opioids to a seven-day supply**
- **Failure to check PMP is grounds for disciplinary action by licensing board**
- **Review chronic pain prescriptions every 3 months and make efforts to decrease or try other treatment**



OK House Bills 2018

- **HB 2795:**
 - Requires medical facility owners to register with the Oklahoma Bureau of Narcotics and Dangerous Drugs
- **HB 2796:**
 - Requires manufacturers and distributors of opioids to make data available for review by the Oklahoma State Bureau of Narcotics and Dangerous Drugs
- **HB 2798:**
 - Creates the Opioid Overdose Fatality Review Board



CDC Guidelines

Centers for Disease Control and Prevention
MMWR

Morbidity and Mortality Weekly Report

Early Release / Vol. 65

March 15, 2016

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



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention



CDC Guidelines

1. OPIOIDS ARE NOT FIRST-LINE THERAPY

Non-pharmacologic therapy and non-opioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with non-pharmacologic therapy and non-opioid pharmacologic therapy, as appropriate.



CDC Guidelines

2. ESTABLISH GOALS FOR PAIN AND FUNCTION

Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.



CDC Guidelines

3. DISCUSS RISKS AND BENEFITS

Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.



CDC Guidelines

4. USE IMMEDIATE-RELEASE OPIOIDS WHEN STARTING

When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/ long-acting (ER/LA) opioids.



CDC Guidelines

5. USE THE LOWEST EFFECTIVE DOSE

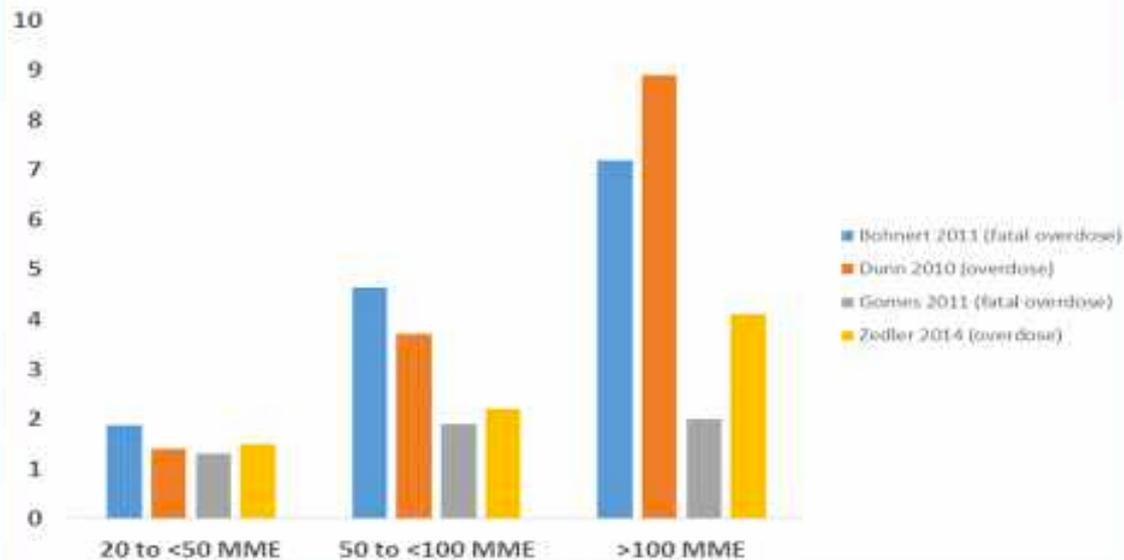
When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥ 50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥ 90 MME/day or carefully justify a decision to titrate dosage to ≥ 90 MME/day.



Risk of Overdose by MME

Relationship of prescribed opioid dose in MME and overdose risk

Odds ratio or hazard ratio for overdose relative to 1 to <20 MME



CDC Guidelines

6. PRESCRIBE SHORT DURATIONS FOR ACUTE PAIN

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



CDC MMWR March 2017

Choice of first prescription	Number (%) of patients	One-year probability of continued use, %	Three-year probability of continued use, %
Long Acting Opioids	6,588 (0.5)	27.3	20.5
Tramadol	120,781 (9.33)	13.7	6.8
Hydrocodone Short Acting	742,112 (57.3)	5.1	2.4
Oxycodone Short Acting	219,224 (16.9)	4.7	2.3
Schedule II Short Acting	14,877 (1.2)	8.9	5.3
Schedule III-IV and Nalbuphine	190,665 (14.7)	5.0	2.2



CDC Guidelines

7. EVALUATE BENEFITS AND HARMS FREQUENTLY

Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 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 to taper and discontinue opioids.



CDC Guidelines

8. USE STRATEGIES TO MITIGATE RISK

Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥ 50 MME/day), or concurrent benzodiazepine use, are present.



CDC Guidelines

9. REVIEW PDMP DATA

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



CDC Guidelines

10. USE URINE DRUG TESTING

When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.



CDC Guidelines

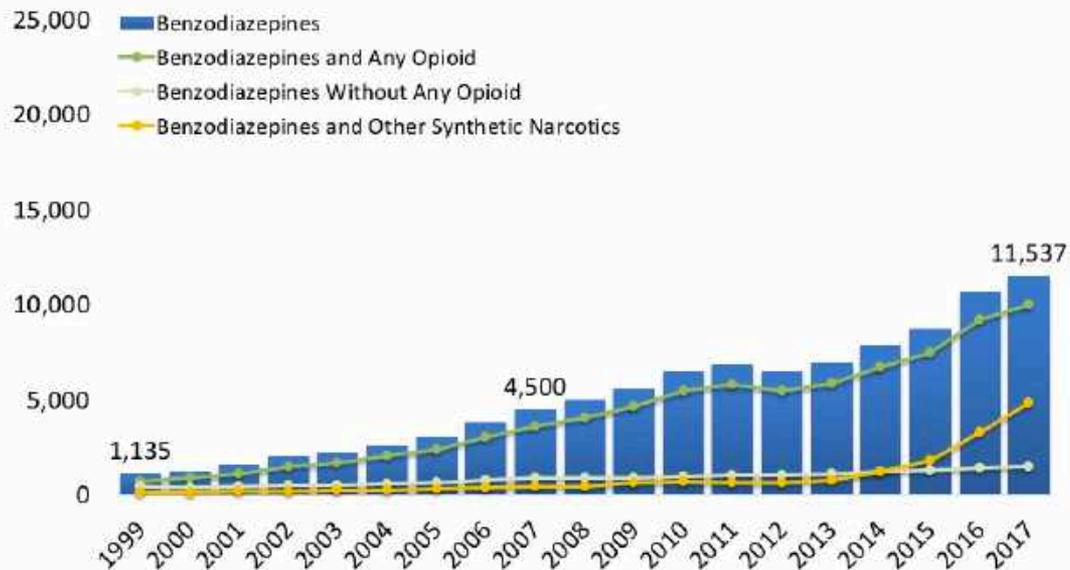
11. AVOID CONCURRENT OPIOID AND BENZODIAZEPINE

Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.



Opioid Overdose Deaths & Benzodiazepines

Figure 8. National Drug Overdose Deaths Involving Benzodiazepines, by Opioid Involvement, Number Among All Ages, 1999-2017



Source: : Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2017 on CDC WONDER Online Database, released December, 2018



CDC Guidelines

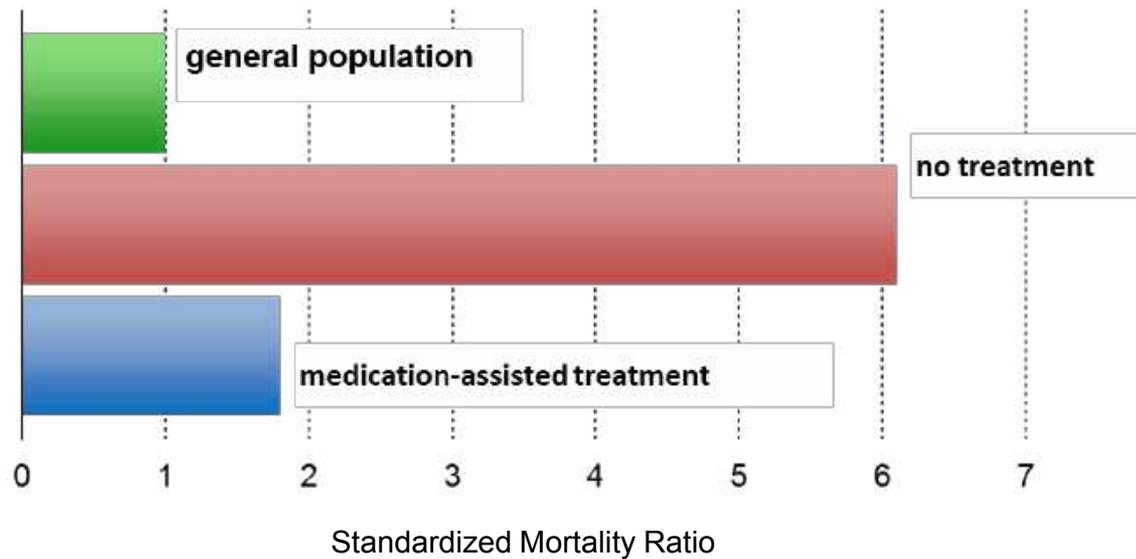
12. OFFER TREATMENT FOR OPIOID USE DISORDER

Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.



Benefits of MAT: Decreased Mortality

Death rates:



Dupouy et al., 2017
Evans et al., 2015
Sordo et al., 2017

Lawsuits

OKLAHOMA SUES DRUGMAKERS OVER OPIOIDS



Bloomberg



Purdue Pharma Settlement

Purdue Pharma and Sacklers Reach \$270 Million Settlement in Opioid Lawsuit

The agreement, negotiated with the state of Oklahoma, will allow the maker of OxyContin to avoid a televised courtroom trial.



Johnson & Johnson

Johnson & Johnson Ordered To Pay Oklahoma \$572 Million In Opioid Trial

August 26, 2019 - 4:19 PM ET
Heard on All Things Considered

JACKIE FORTIER BRIAN MANN



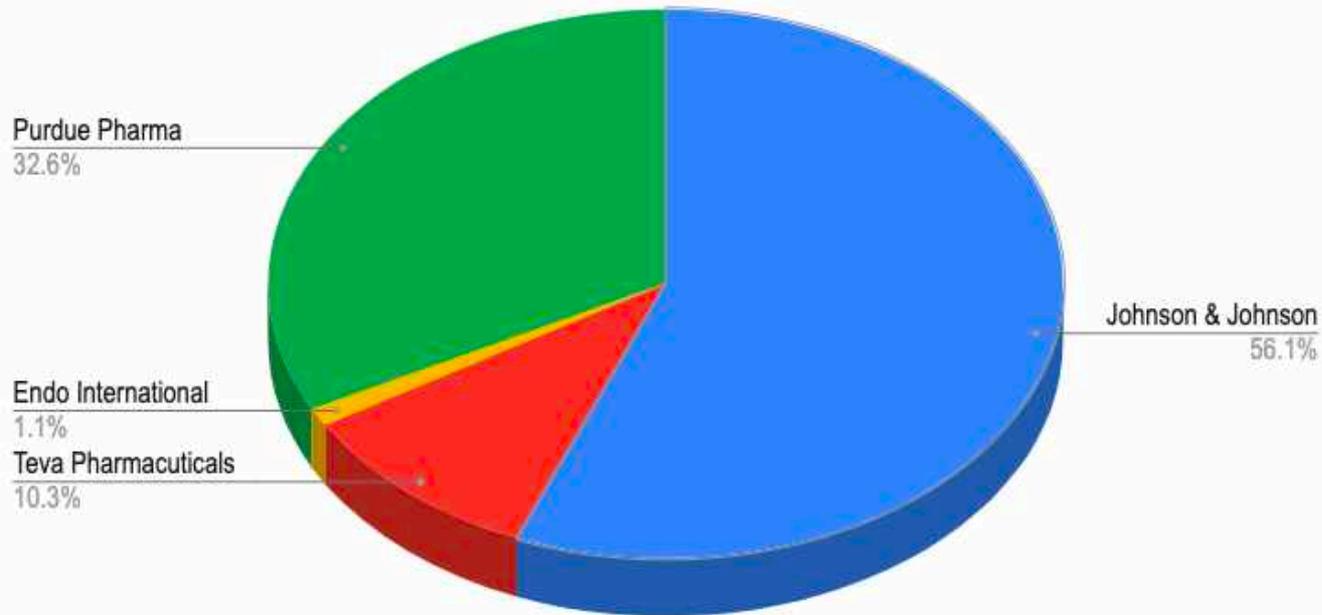
Judge Thad Balkman ruled that Johnson & Johnson is responsible for fueling Oklahoma's opioid crisis. He announced his decision in Norman, Okla., Monday.



\$829 Million Awarded to State

Oklahoma has won \$829 million in awards and settlements from drug companies

Johnson & Johnson's portion could change depending on the outcome of the court case



MWC DOCTOR ARRESTED

MURDER CHARGES

DR. REGAN NICHOLS



MIDWEST CITY DOCTOR CHARGED WITH 2ND DEGREE MURDER



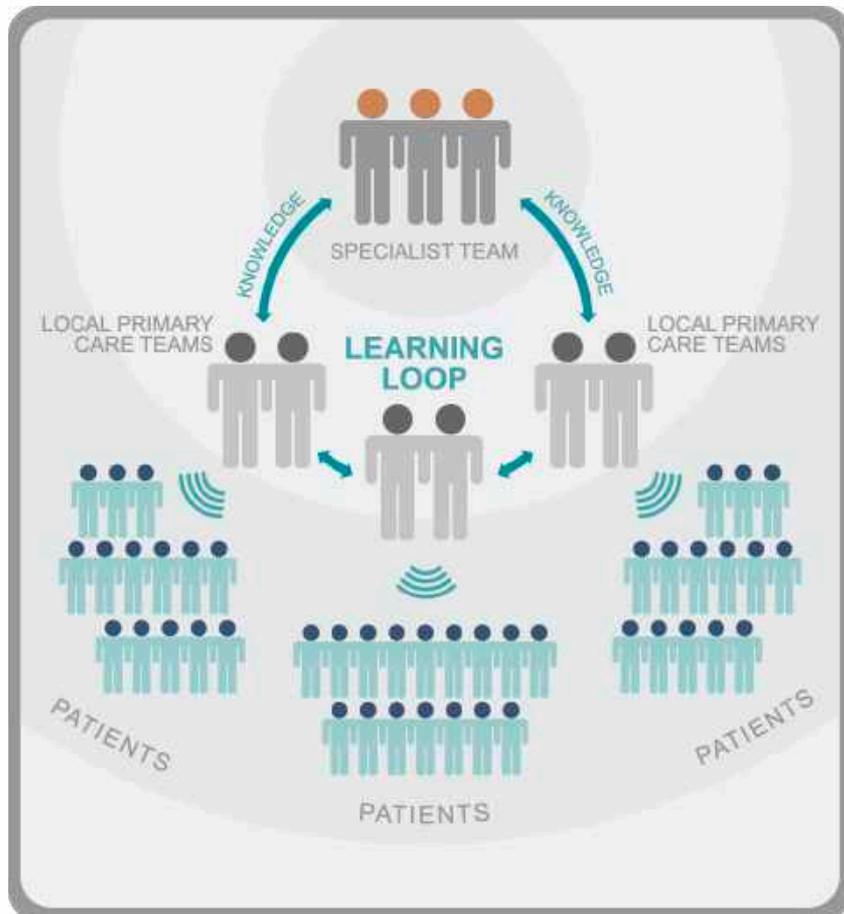
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Regan Nichols

- Prosecutors say ten patients of Nichols died of overdoses over the span of four years
- “Each one of the individuals was prescribed an excessive amount of medication the same months of their deaths which were all the result of multi-drug toxicity, according to the Oklahoma Examiner’s reports” (AG Mike Hunter)
- According to court documents, prosecutors allege that between January 2010 and October 2014, Nichols prescribed more than **three million doses of controlled dangerous substances.**
- Five people who died were prescribed more than **1,800 opioid pills** in the same months of their deaths.



Project ECHO



**CENTER
FOR HEALTH
SCIENCES**



Addiction Medicine Project ECHO



Mondays at Noon
health.okstate.edu/echo



Samuel Martin, M.D., FASAM
Psychiatrist, Addictionologist



Crystal David, Pharm.D.
Clinical Pharmacist



Courtney Busse-Jones, B.S.
Project ECHO Clinical
Coordinator



OSU Psychiatry ECHO



National Center for Wellness & Recovery

Clinical Practice

Evidence-based practices to treating pain, addiction, and other behavioral health challenges

Research

Improve pain management and understand the causes of addiction

Training & Education

Undergraduate, Graduate Medical Education and Continuing Medical Education

Policy & Advocacy

Eliminate the stigma of mental health and addiction



Questions?

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