Swiss Re

Opioid Epidemic:
Racing to the Top of the Leader Board

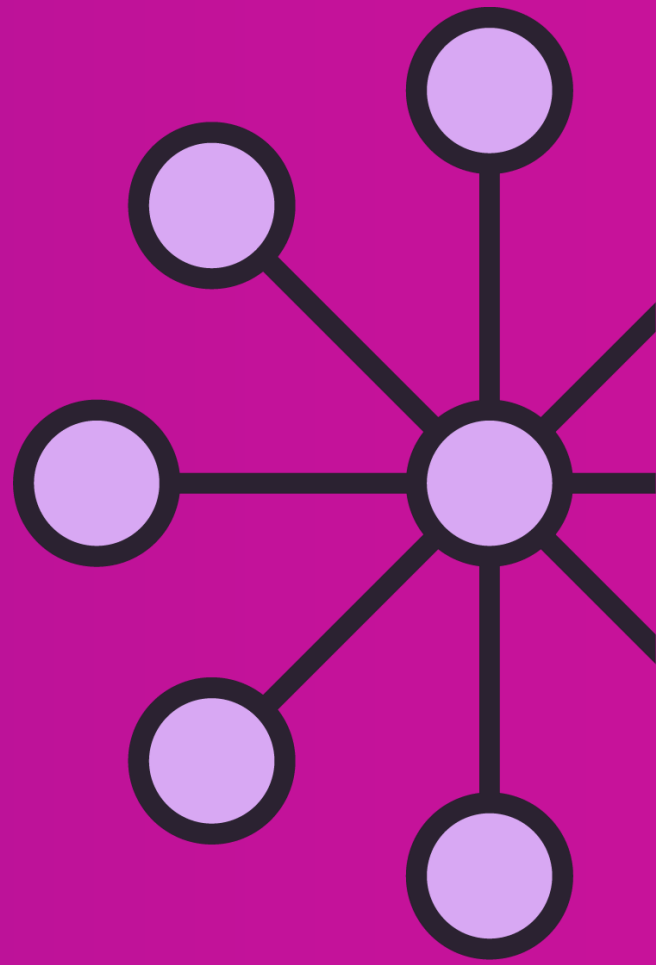
Elyssa Del Valle, M.D. DBIM

An MDs Firsthand Medical Perspective On How in the Heck Did We Get Here!!??

Swiss Re

AGENDA

- WHAT IS CHRONIC PAIN AND ITS IMPACT
- HISTORICAL REVIEW OF PAIN/PAIN MANAGEMENT
- VITAL STATISTICS ON LEADING CAUSES OF DEATH IN 1900, 2000 AND 2015
- 1990S INSURGENCE OF AGGRESSIVE PAIN MANAGEMENT
- PHARMACEUTICALS PROMISE FOR SAFE DELIVERY OF CHRONIC PAIN MEDS
- ACCIDENTAL DEATH CLAIMS AND RISE OF SURPLUS OF TRANSPLANT DONORS
- SMALL BLIP OF HOPE TO REVERSE OPIOID EPIDEMIC
- UNDERWRITING APPROACHES, RED FLAGS AND CASE STUDIES
- FINAL THOUGHTS: EDITORIAL

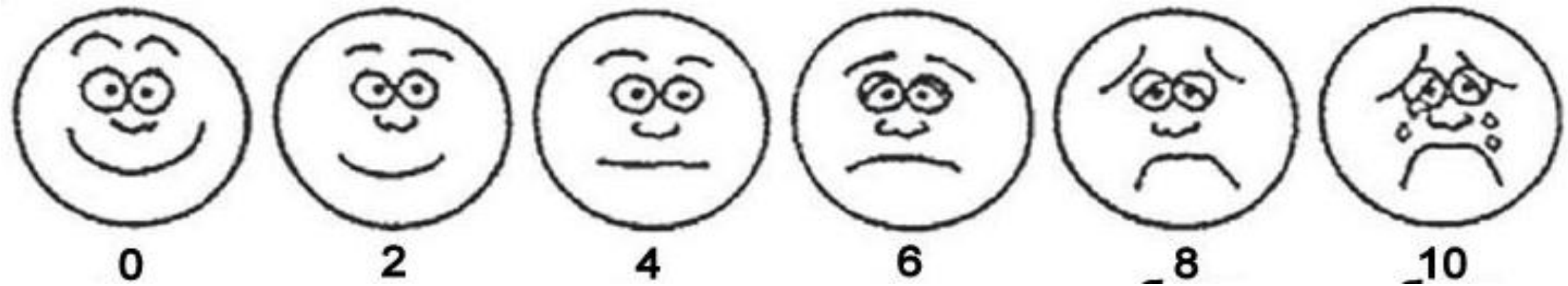


Impact and Cost of Chronic Pain:

- Chronic pain is a major public health problem in the United States.
- One in 4 Americans, or 75 million people, suffer from pain lasting more than 24 hours and even more suffer from acute pain. This is a rough estimate given variable and difficult to quantify.
- Chronic pain causes tremendous human suffering for its victims, their families, and society as a whole. **More than 20% of all medical visits** and **10% of all drug sales are pain-related**. This varies with regions of country.
- The Institute of Medicine's report estimated that costs of providing medical care and lost productivity due to pain are $560 to $635 billion dollars annually. This dollar amount exceeded the combined costs of heart disease, diabetes, and cancer. (NEJM: IOM Pain Report)
- Chronic pain is significantly related to unemployment and reduced productivity in those who do work.
- Chronic pain is associated with sleep problems, depression, anxiety, social isolation, and overall reduced quality of life.

What is “PAIN”

- Pain is recognized as a personal and subjective experience.
- Mc Caffery’s definition, “Pain is whatever the experiencing person says it is, existing whenever he says it does.” This highlights the subjective nature of pain..



The definition put forth by the International Association for the Study of Pain states, “Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.”

Terms of Chronic Pain Found In APS

Causalgia - Burning quality of pain usually from peripheral nerve injury

Central pain - Pain from CNS origin

Dysesthesia - An unpleasant abnormal sensation, abnormal sense of touch

Hyperesthesia - excessive physical sensitivity, especially of skin

Hyperpathia - A painful syndrome characterized by an exaggerated painful reaction to a stimulus

Neuralgia - Pain in the distribution of a nerve or nerves.

Neuritis - Inflammation of a nerve or nerves.

Neuropathic pain - Pain caused by a lesion or disease of the somatosensory nervous system, allodynia

Neuropathy - A disturbance of function or pathological change in a nerve

Paresthesia - An abnormal sensation, whether spontaneous or evoked, usually described as tingling, prickly or pins and needles

What is "Chronic Pain"?

- Chronic pain is pain that lasts for weeks, months, or even years.
- It is pain that continues beyond the time expected for healing.

Pain is not a symptom that exists alone. Other problems associated with pain can include:

- ✓ Fatigue
- ✓ Insomnia
- ✓ Withdrawal from activity and increased need to rest
- ✓ Weakened immune system
- ✓ Changes in mood including anger, fear, depression, irritability, anxiety
- ✓ Disability
- ✓ **Unintentional** Overdose-Death

Psychiatric Disease Associated with Chronic Pain: Doubly Concerning

- Depression and Pain ... the chicken or the egg.. 27% of patients in primary care clinics with pain conditions meet the criteria for major depression
- Emotional toll of chronic pain exacerbates anxiety, depression, anger
- Comorbid Conditions for Chronic Pain That Deserve Underwriting Caution:
  - Affective or Mood Disorders
  - Substance related disorders including alcohol, MJ, Stimulants and Sedatives
  - Personality disorders

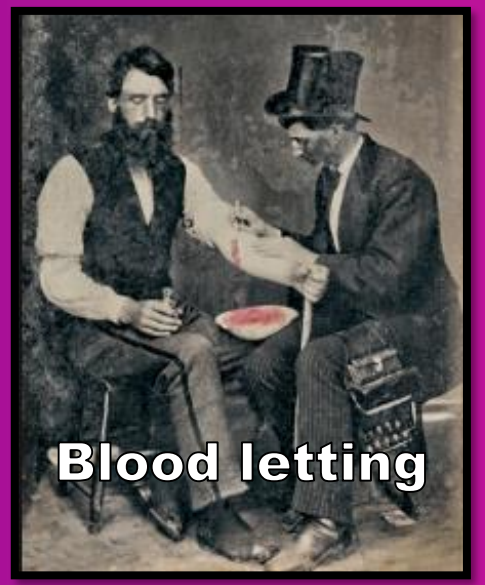
History of Pain and Its Management:

- Pain is the oldest medical problem - universal physical affliction of mankind.
- Word originates from Greek goddess, Poine, who was sent to punish the mortal fools who had angered the gods. Latin word poena: pain, punishment
- Pre Columbian Era—3000BC—AD 1492—believed supernatural forces both as a factor of disease etiology and as a key tool in its management. Depicting deformity as art on everyday objects was designed to "transfer" the disease from the affected individual to the item in question. No records on efficacy, although if successful might represent earliest examples of the placebo effect.

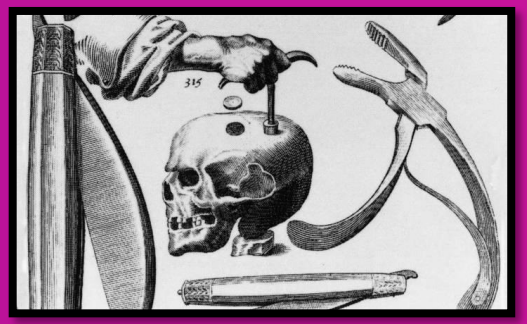
History of Pain Management

Alcohol

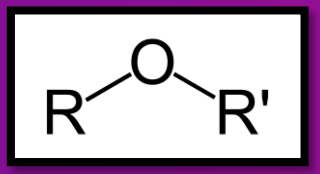

Scarification




Coca leaves


Trepanation


Thermotherapy



Ether

Bayer, NSAIDS,

COX 2 inhibitors

History of Pain Management: Trepanation

Trepine is instrument that cuts out round piece of skull bone. Cave drawings from Neolithic times suggested this was done for seizures, migraines and mental disorders. Bone worn as a charm to ward off evil spirits.

Detail from *The Extraction of the Stone of Madness*, a painting by Hieronymus Bosch depicting trepanation (c.1488–1516).

History of Pain Management: Cupping

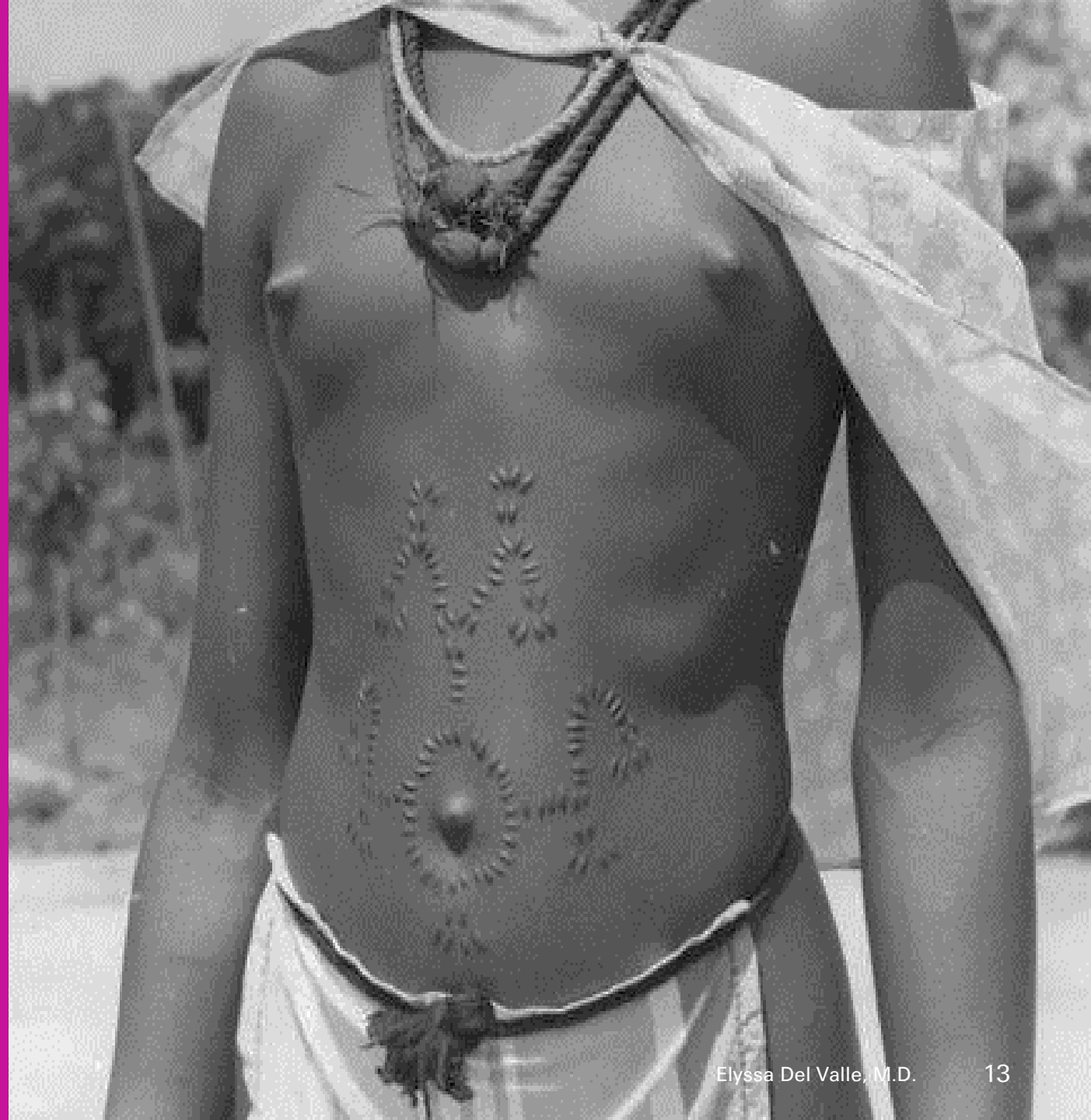
Cupping set, London, England, 1860-1875
Cupping was a method of bloodletting: a practice once carried out to treat a wide range of diseases and medical conditions. Warm glass cups were placed on the skin to draw blood believed to be harmful to health to the surface of the skin. In ***wet cupping***, the blood was released from the body using a lancet or scarificator (a set of spring-operated lancets). The set was made by S Maw & Son, a surgical instrument maker based in London.

History of Pain Management: Scarification

Endorphins released to induce euphoric state.

Scarring abdomen of women in tribes to denote a willingness to bear children; that they can tolerate pain and are emotionally mature

Used to treat medical conditions including seizures, pneumonia, stomach pain by belief that letting blood where disease originates can come out. Can also put some healing powder to wound to have it travel into bloodstream.



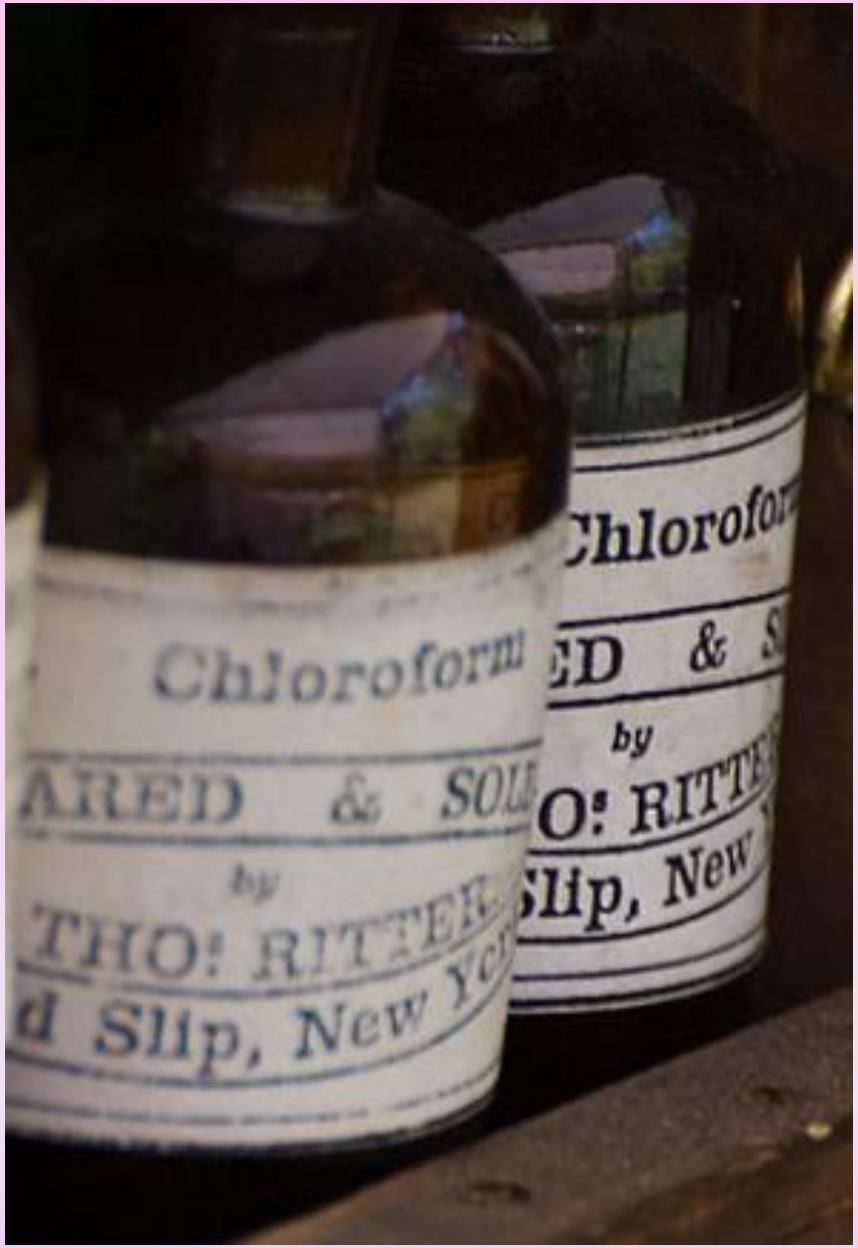
History of Pain Management: Salicylates

Ancient history.

- Found in willow bark and multiple plants (latin salix, willow tree)
- Hippocrates and others knew it could ease pain and fevers. Ancient Egypt and Cherokee nation used medicinally
- Not mass produced until 1899 when Felix Hoffman and colleagues (at Bayer Co.) found that by converting salicylic acid to Acetylsalicylic acid (aspirin), there was less of an irritant effect from the drug

History of Pain Management: Ether/Chloroform

- Robert Mortimer Glover won Harveian Medal in 1842 using on dogs
- James Simpson, an obstetrician, used chloroform on 2 dinner guests as entertainment
- By 1853 Queen Victoria utilized Chloroform during delivery of her 8th child.
- Civil war 1860s widely used as method of surgical anesthesia



Historical Review of Opiates

Bottle of 'Papine', London, England, 1890-1920

For The Love of Opiates and Opiate Agonists!

"PAPINE" is the anodyne or pain-relieving principle of Opium, the narcotic or convulsive elements being eliminated. "Papine" contains one grain of Morphine Hydrochloride to each fluid ounce=0'158% Anhydrous Morphine w/v.

DOSE. One half to one drachm, repeated at intervals as may be necessary.

CAUTION. *It is dangerous to exceed the stated dose.*

1/8th of an ounce

Opium Addiction Cure Advertisement in 1900

MORPHINE

EASY HOME CURE

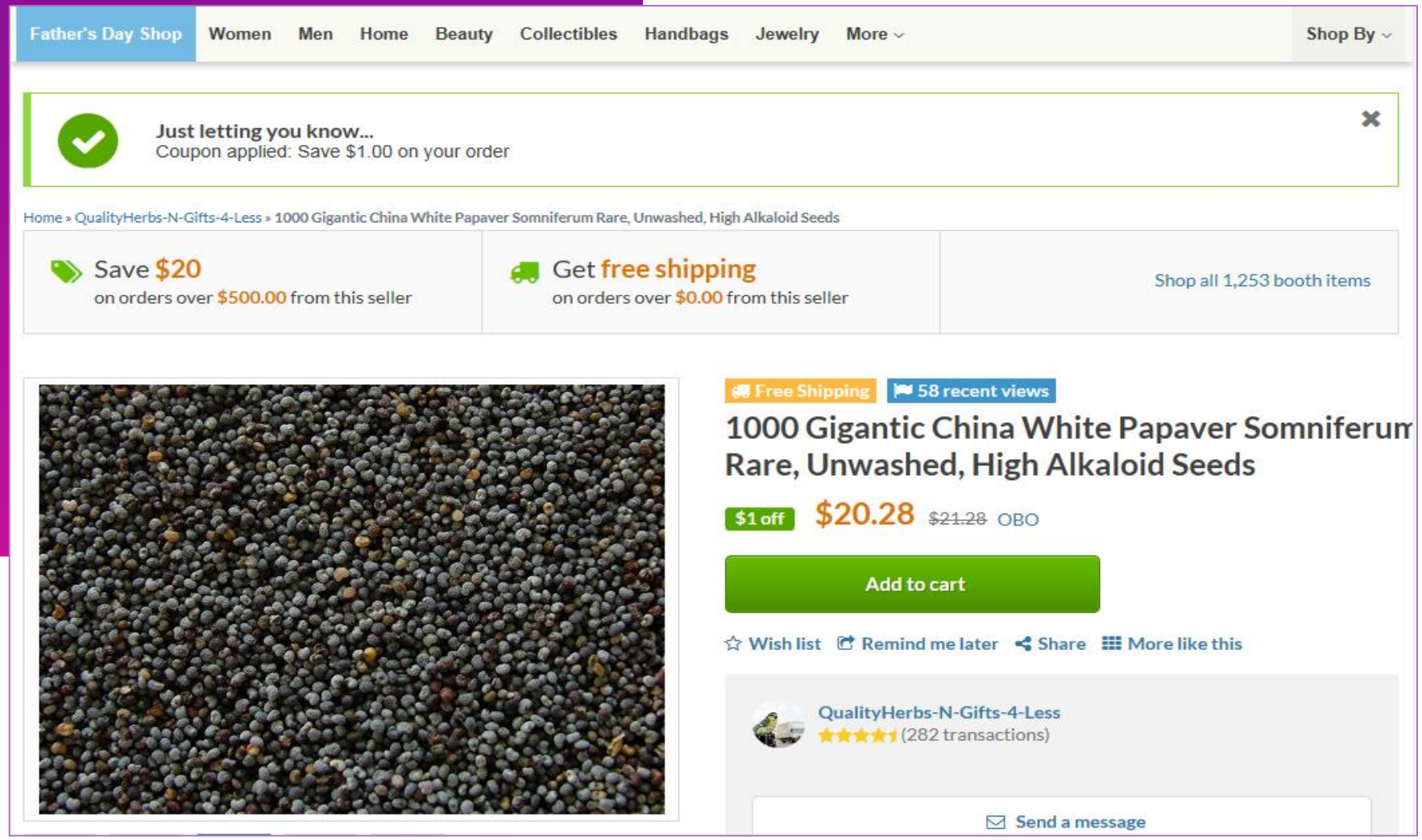
PAINLESS— PERMANENT

We will send anyone addicted to **OPIUM, MORPHINE, LAUDANUM,** or other drug habit, a **Trial Treatment, Free of Charge,** of the most remarkable remedy ever discovered. Contains **Great Vital Principle** heretofore unknown. **Refractory Cases** solicited. Confidential correspondence invited from all, especially **Physicians.** ST. JAMES SOCIETY, 1181 BROADWAY, NEW YORK.

History of Pain Management with Opiates:

- Opium: dates back as far back as Neolithic and ancient times. Used for anesthesia as well as ritualistic purposes.
- 1805-1816: Pharm assistant Frederich Wilhelm Serturner separates morphine from Opium. Called it Morphine after the Greek God Morpheus (God of dreams)
- 1827: E. Merck & Co. begin commercial manufacturing of morphine.
- 1853: Dr. Alexander Wood of Edinburgh discovers a new way to administer morphine via injection (hypodermic needle invented at this time)
- English researcher C.R. Wright first synthesis heroin or diacetylmorphine by boiling morphine over a stove.
- 1895: Heinrich Dreser working for the Bayer company reintroduces heroin.

Father's Day Gift Ideas



Ingestion of Poppy Seeds: Implications for Drug Testing

- When poppy seeds are ingested, any opium that is on the seeds is also ingested.
- Depending upon where the seeds came from, how they were washed, and the amount of seeds consumed, enough of that substance can be absorbed to produce morphine in the urine and produce a positive test result. Other factors are the time from ingestion to drug screen collection, the patient's hydration state, and the patient's genome for drug metabolism. There are also inter-individual pathophysiologic variances.
- Studies have shown that, following ingestion of cake material, morphine concentrations in a urine sample can be in the thousands of nanograms per milliliter (ng/mL), and in the hundreds of nanograms per milliliter after bagel consumption.[5-6] The implication of these levels for drug testing are significant, as healthcare providers try to determine whether a result is a true positive and to differentiate between someone who has been abusing morphine or heroin, or has consumed poppy seeds.
- For workplace testing, the federally regulated testing programs managed by the Substance Abuse and Mental Health Services Administration (SAMSHSA) originally used a cutoff for morphine of 300 ng/mL, but in 1998 this was raised to 2,000 ng/mL for both presumptive and definitive tests to reduce the instances of positive drug tests following ingestion of poppy-containing foodstuffs.[7] "But even a cutoff of 2,000 mg/mL doesn't completely eliminate the possibility of poppy seeds being an attributable cause for a drug test to be positive,"[5] notes Dr. McClure.

Elyssa Del Valle, M.D.

Leading Causes of Death in USA in 1900

Rank	Leading Causes of Death	Number	Percent	Rate per 100,000
	All Causes	343,217	100.0	1,719.1
1	Pneumonia and Influenza	40,362	11.8	202.2
2	Tuberculosis	38,820	11.3	194.4
3	Diarrhea, Enteritis, Ulceration of Intestines	28,491	8.3	142.7
4	Diseases of the Heart	27,427	8.0	137.4
5	Intracranial Lesions of Vascular Origin	21,353	6.2	106.9
6	Nephritis	17,699	5.2	88.6
7	All Accidents	14,429	4.2	73.2
8	Cancer	12,769	3.7	64
9	Senility	10,015	2.9	50.2
10	Diptheria	8.056	2.3	40.3
	All other causes	123,796	36.1	

Leading Causes of Death in USA in 2000

Rank	Leading Causes of Death	Number	Percent	
	All Causes	2,403,351	100.0	
1	Diseases of the Heart	710,760	29.6	
2	Malignant neoplasms	553,091	23.0	
3	Cerebrovascular Diseases	167,661	7.0	
4	Chronic lower respiratory diseases	122,009	5.1	
5	Accidents (unintentional)	97,900	4.1	
6	Diabetes	69,301	2.9	
7	Influenza and pneumonia	65,313	2.7	
8	Alzheimer's disease	49,558	2.1	
9	Nephritis, nephrotic syndrome and nephrosis	37,251	1.5	
10	Septicemia	31,224	1.3	

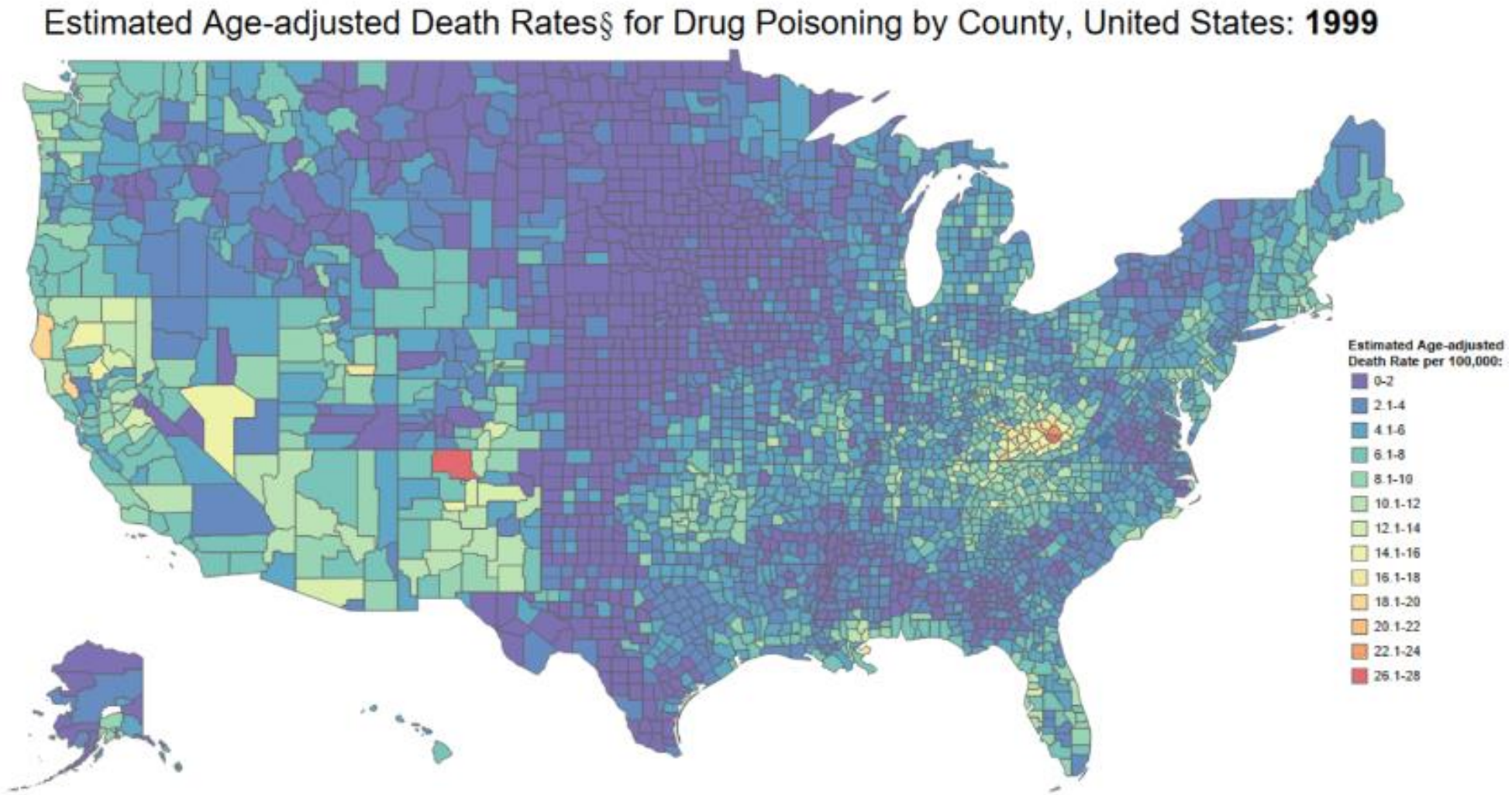
Leading Causes of Death in USA in 2015

Rank	Leading Causes of Death	Number	Percent	AADR
	All Causes	2,712,630	100.0	733.1
1	Diseases of Heart	633,842	23.4	168.5
2	Cancer	595,930	22.0	158.5
3	Chronic Pulmonary Dz	155,041	5.7	41.6
4	Accidents (unintentional)	146,571	5.4	43.2
5	Cerebrovascular dz	140,323	5.2	37.6
6	Alzheimer	110,561	4.1	29.4
7	Diabetes	79,535	2.9	21.3
8	Influenza and Pneumonia	57,062	2.1	15.2
9	Nephritis, Nephrotic syndrome	49,959	1.8	13.4
10	Intentional self-harm/Suicide	44,193	1.6	13.3
11	Septicemia	40,773	1.5	11.0
12	Chronic Liver Dz and Cirrhosis	40,326	1.5	10.8
13	Essential HTN, Hypertensive Renal Dz	32,200	1.2	8.5
14	Parkinson's	27,972	1.0	7.7
15	Pneumonitis due to solids and liquids	19,803	0.7	5.3
	Other	538,539	19.9	

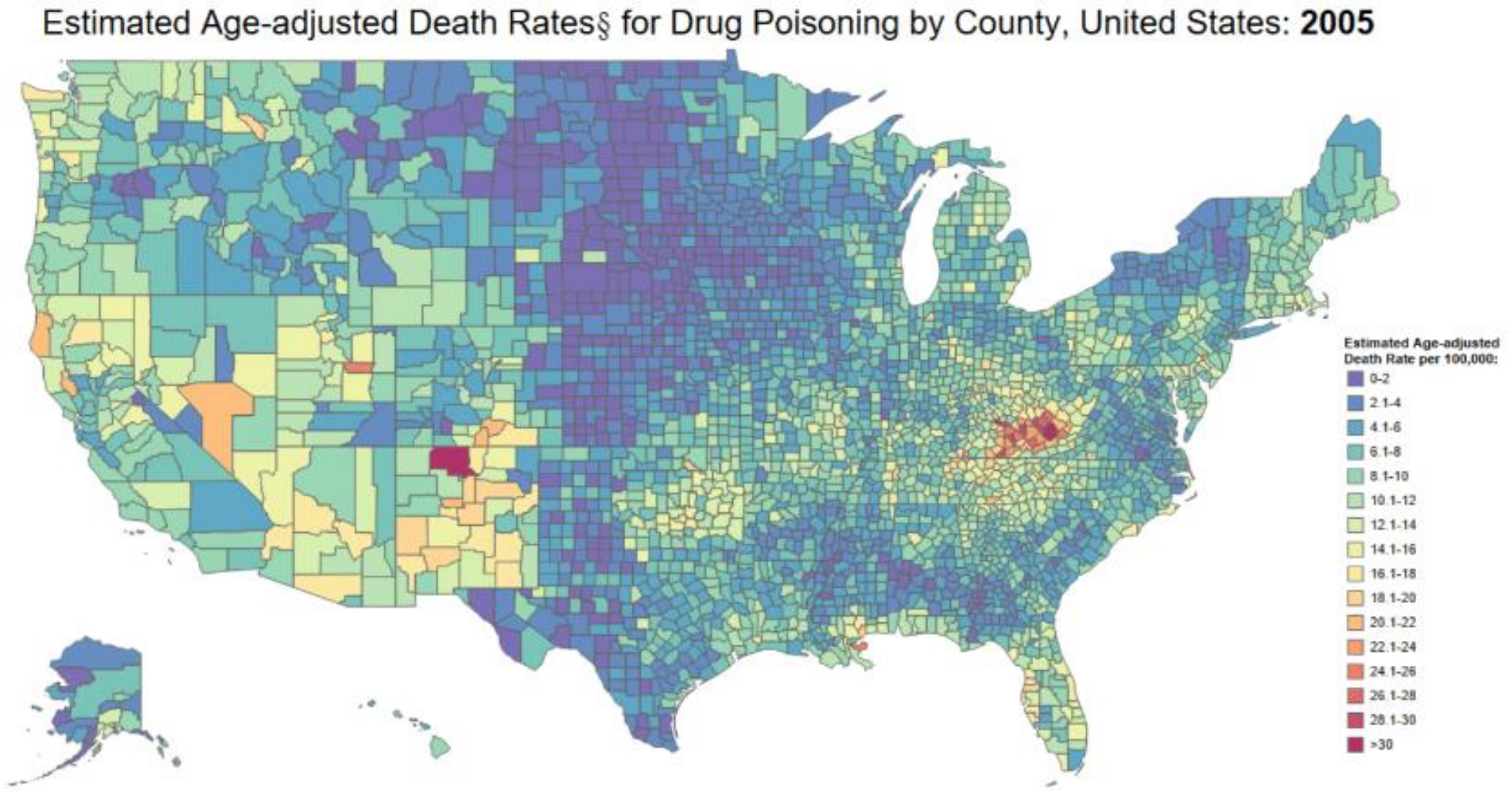
Leading Causes of Death in USA in 2017

Cause of death (based on ICD–10)		Rank[1]	2017 Deaths	2017 Percent of total deaths
All causes	...	...	2,813,503	100.0
Diseases of heart	(I00–I09,I11,I13,I20–I51)	1	647,457	23.0
Malignant neoplasms	(C00–C97)	2	599,108	21.3
Accidents (unintentional injuries)	(V01–X59,Y85–Y86)	3	169,936	6.0
Chronic lower respiratory diseases	(J40–J47)	4	160,201	5.7
Cerebrovascular diseases	(I60–I69)	5	146,383	5.2
Alzheimer disease	(G30)	6	121,404	4.3
Diabetes mellitus	(E10–E14)	7	83,564	3.0
Influenza and pneumonia	(J09–J18)	8	55,672	2.0
Nephritis, nephrotic syndrome and nephrosis	(N00–N07,N17–N19,N25–N27)	9	50,633	1.8
Intentional self-harm (suicide)	(*U03,X60–X84,Y87.0)	10	47,173	1.7

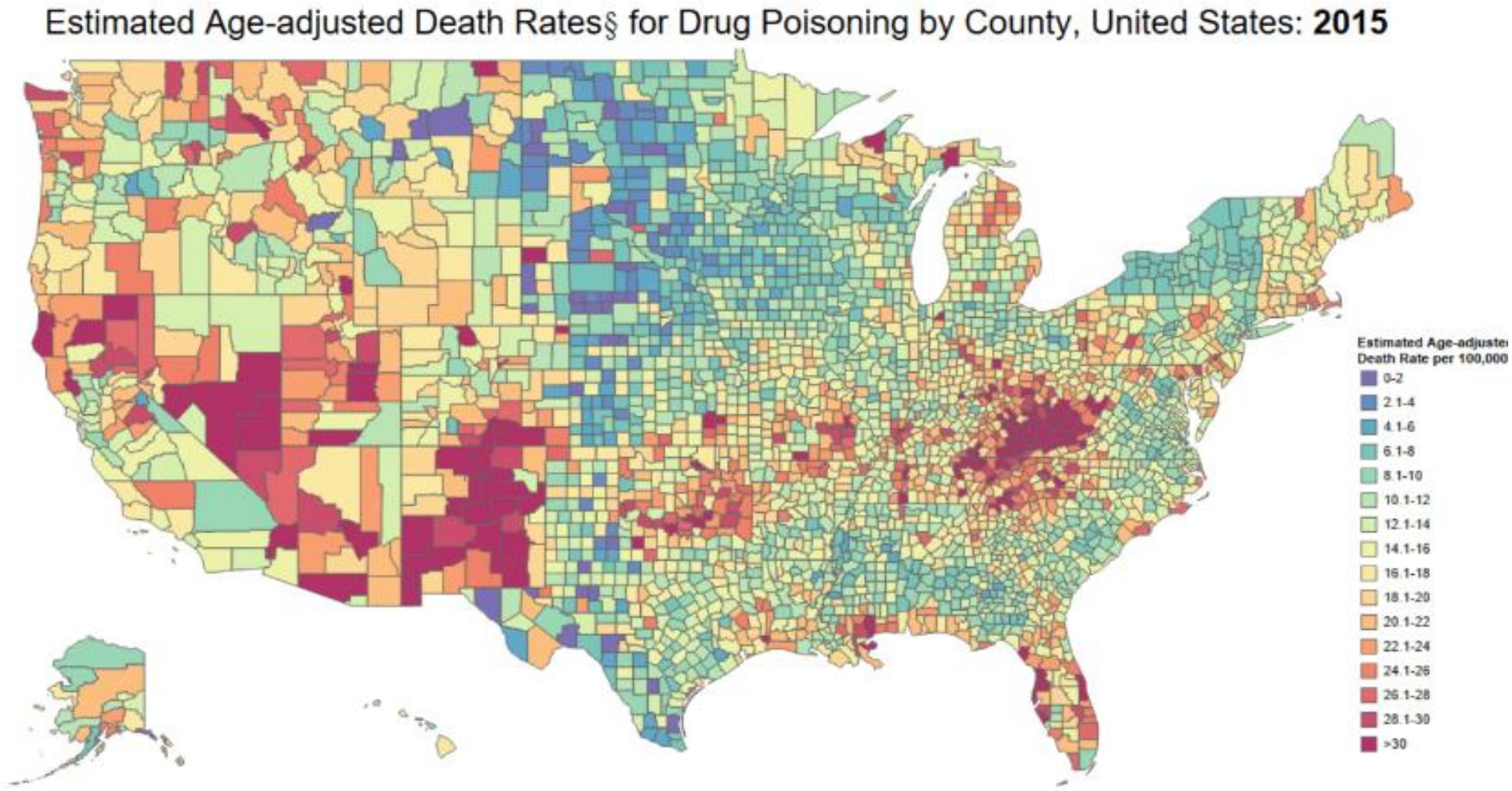
Drug Poisoning Mortality by Place and Time: 1999



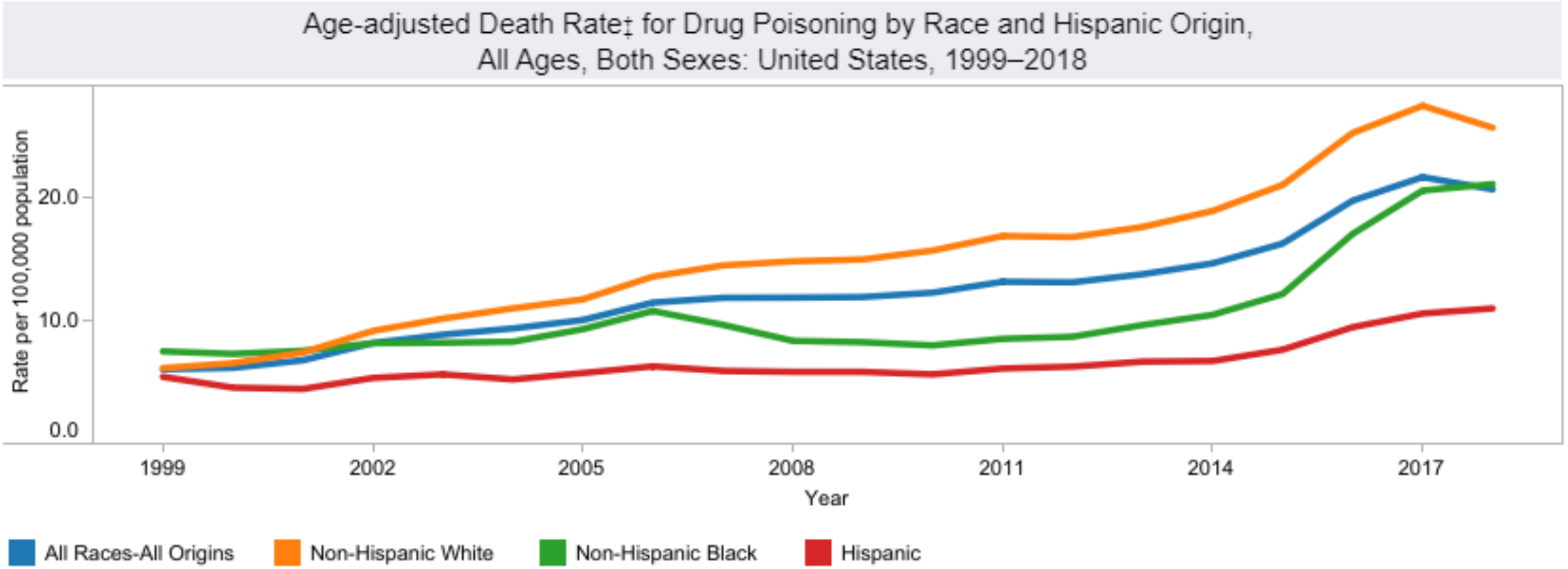
Drug Poisoning Mortality by Place and Time: 2005



Drug Poisoning Mortality by Place and Time: 2015



Unintentional Poisoning: USA 1999-2018



CDC.gov/nchs/data-visualization

Why the surge in deaths????

Changes in Prescribing Patterns: Insurgence of Aggressive Pain Management

Editorial in New England Journal of Medicine

- **Previously**, **opioids were not** indicated in the long-term treatment of chronic pain
- **This philosophy changed drastically** in the late 1990s and into 2000
  - New pain management guidelines from the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) in 2000
  - In 2001 California mandated all licensed physicians (except radiologists and pathologists) take a full-day course on "pain management"
  - **The self-report of pain was to be treated above any other considerations**
- Patient **satisfaction surveys** and **Internet** physician ratings became powerful determinants of a physician's payment and business
- **Addiction counseling** and **treatment** is time-consuming, poorly reimbursed and **often unavailable**, **while treatment with opiates is profitable** and **pain clinics ubiquitous**

Bullets on the 2000 guideline by JCAHO on Pain Management

Joint Commission changes its pain standards

Patient Rights

As a patient of this home care agency, you can expect:

- your reports of pain will be believed;
- information about pain and pain relief measures;
- a concerned staff committed to pain prevention and management;
- health professionals who respond quickly to reports of pain;
- effective pain management.

Additional Reasons For Insurgence of Aggressive Pain Management

- Oxycontin was marketed as a non-addicting opioid pain reliever based on industry-sponsored trials
- NSAIDs have been shown to be associated with a higher risk of coronary artery disease, stroke and GI bleeds

Talking Points on Presentations to the Emergency Room

- Self Inflicted trauma
- Threatening Harm to Physician: a firsthand experience
- Con artistry
- Bring in actual imaging and documents

POP QUIZ:

Pick the Opioid Addict

Hint: No Wrong Answer

Accidental Death Claims: Typical Claim Referral ?s

#1

We are currently reviewing an accidental (death/dismemberment) claim for the loss of death. The insured's (death/dismemberment) occurred as the result of medication overdose

Attached are the Accidental Death and Dismemberment Insurance provisions for the Federal Employee's Group Life Insurance Plan.

#2

To a reasonable degree of medical certainty, is it your opinion that the loss was a direct result of an injury, independent of other causes? ☐ YES ☐ NO (If NO, please provide supporting information)

#3

To a reasonable degree of medical certainty, is it your opinion that the loss was caused or contributed to by physical or mental illness, or the diagnosis of or treatment of physical or mental illness? ☐ YES ☐ NO (If YES, please provide supporting information)

#4

To a reasonable degree of medical certainty, is it your opinion that the loss was caused by or resulted from the self-administration of illegal or illegally obtained drugs or driving a vehicle while intoxicated? ☐ YES ☐ NO (If YES, please provide supporting information)

#5

Can you please advise if the insured was over his prescribed amounts of hyrdrocodone and cyclobenzaprine? Can you also please provide the converted amouts of medication per the toxicology report and prescription information. (Toxicology indicates ng/ml and prescription records indicate mg)

Accidental Death Claims: My Typical Response Upon Review of Death Certificate, Autopsy Report and Toxicology

2) Yes. To a reasonable degree of medical certainty, it is my opinion that the death was a direct result of the injury with injury being drug intoxication, independent of other causes.

3) Yes. To a reasonable degree of medical certainty, it is my opinion that the loss was contributed by the treatment of a physical condition. He was prescribed narcotic analgesics and muscle relaxers for a pain condition, prescribed by a licensed physician.

4) No. To a reasonable degree of medical certainty, it is my opinion that the loss was not caused or resulted from the self-administration of illegal or illegally obtained drugs or driving a vehicle while intoxicated. He died in his residence from medications prescribed by his licensed physician in combination with alcohol.

5) To a reasonable degree of medical certainty, it is my opinion that the insured was taking the medications as prescribed. Toxicology correlates with the prescribed dosages of Hydrocodone, Cyclobenzaprine. He was prescribed Hydrocodone 10 mg every 5 hours and Cyclobenzaprine 10 mg three times daily. The toxicology correlates with therapeutic levels for Cyclobenzaprine and a blood level of hydrocodone of 0.37 mcg/ml which would correlate to his dosage prescribed. The combined sedative effects of these medications with alcohol (BAC of 0.02%) would reasonably explain respiratory depression and death.

Rise of Surplus of Transplant Donors

TIME Organ Transplants Hit an All-Time High in 2017. But...

HEALTH • PUBLIC HEALTH

Organ Transplants Hit an All-Time High in 2017. But It's a Bittersweet Win

Last year, organs were recovered from 10,281 deceased donors—more than a 3% increase from 2016 and a 27% increase over the last 10 years.
Those organs contributed to the 34,768 transplants performed in 2017 using organs from both deceased and living donors—a new record for organ transplants in the United States. The reasons why are both hopeful and concerning.

"The number of transplants is directly related to the number of donors," says Dr. David Klassen, the chief medical officer of UNOS. "I think who can be a donor has really evolved over the years. The transplant community as a whole has done a really good job looking beyond the usual places of who can be a donor."

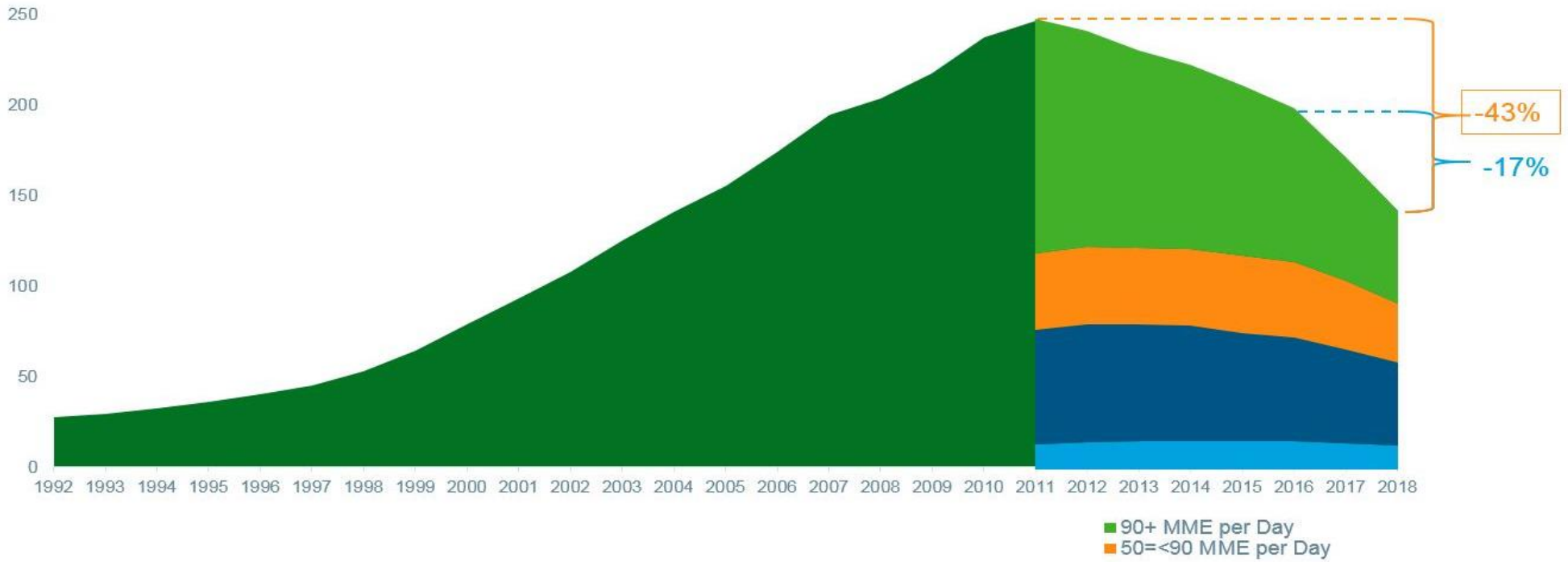
Blip of HOPE

The International Association for the Study of Pain (IASP) is the leading professional organization for science, practice, and education in the field of pain. Founded in 1973, IASP brings together scientists, clinicians, health-care providers, and policymakers to stimulate and support the study of pain and translate that knowledge into improved pain relief worldwide.

Medicine Usage Trends

Prescription opioid volume peaked in 2011 at 246 billion milligrams of morphine and has declined by 43% to 141 billion

Narcotic Analgesic Dispensed Volumes in Morphine Milligram Equivalents (MME) Bn



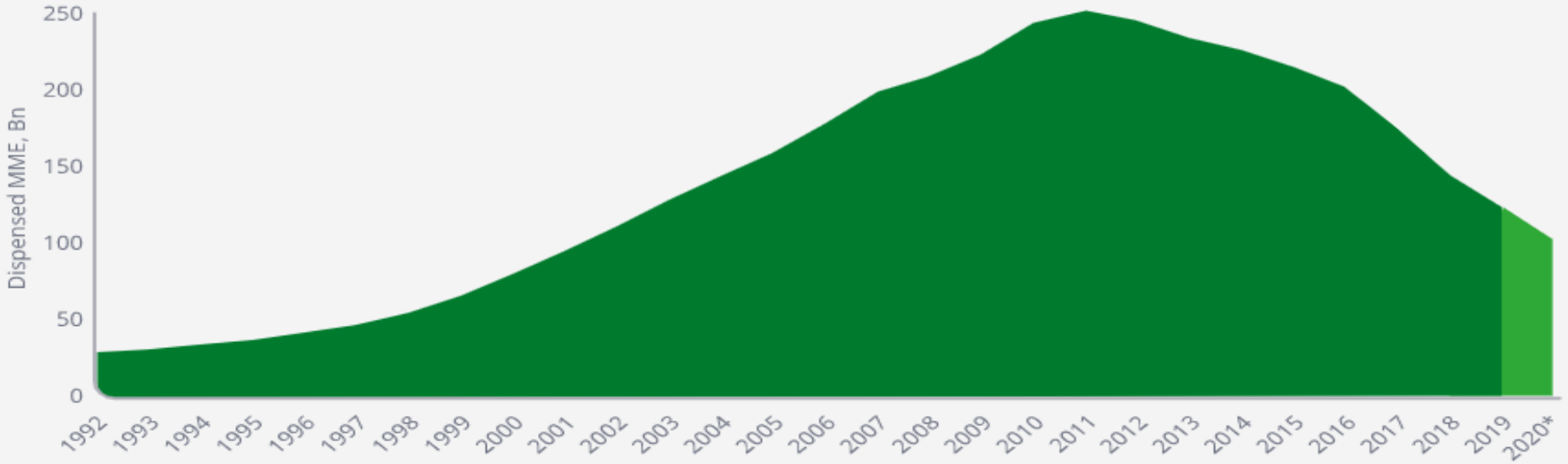
Source: IQVIA National Prescription Audit, Dec 2017; IQVIA Xponent, Feb 2019

A report by the IQVIA Institute: Medicine Use and Spending in the U.S.: A Review of 2018 and Outlook to 2023

Medicine Usage Trends

Key Findings

Total national prescription opioid use has declined to 60% of the peak volume in 2011 after another year of double digit decline expected in 2020



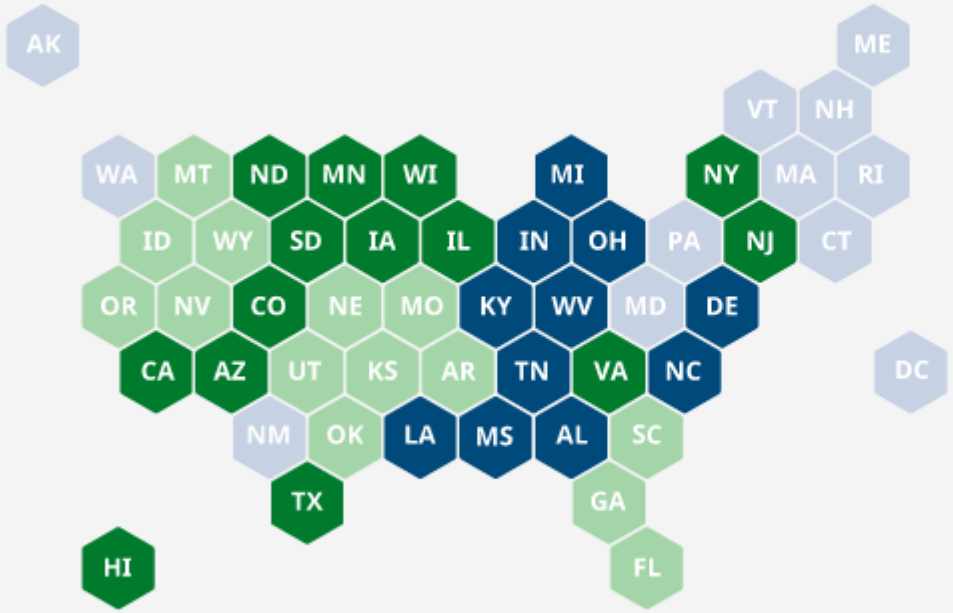
Source: IQVA Xponent, Mar 2020; IQVIA National Prescription Audit; IQVIA Institute, Nov 2020

Exhibit Notes: Historical NPA archive data for periods 1992-2005 combined with Xponent analysis for periods 2006-2020. 2020* includes data through September, and an estimation of Q4 2020 data based on previous year trend. Analysis is based on opioid medicines for pain management and excludes those medicines used for medication-assisted opioid use dependency treatment (MAT) or overdose recovery. Opioid medicines are categorized and adjusted based on their relative intensity to morphine, called a morphine milligram equivalent (MME), see Methodology. 1CDC Prescription Opioid Data. Accessed Oct 2020. Available from: https://www.cdc.gov/drugoverdose/data/prescribing.html

Report: Prescription Opioid Trends in the United States. IQVIA Institute for Human Data Science, December 2020.

Medicine Usage Trends

There is a significant cluster of states with both opioid and MAT use above the national average



	Average TRx per capita	
	Opioid	MAT
Total	495	54
Lower Opioid use **Lower** MAT use	**383**	**32**
Higher Opioid use **Lower** MAT use	573	39
Higher Opioid use **Higher** MAT use	**643**	**106**
Lower Opioid use **Higher** MAT use	398	116

Source: IQVIA Xponent, Mar 2020; US Census Bureau, Feb 2020

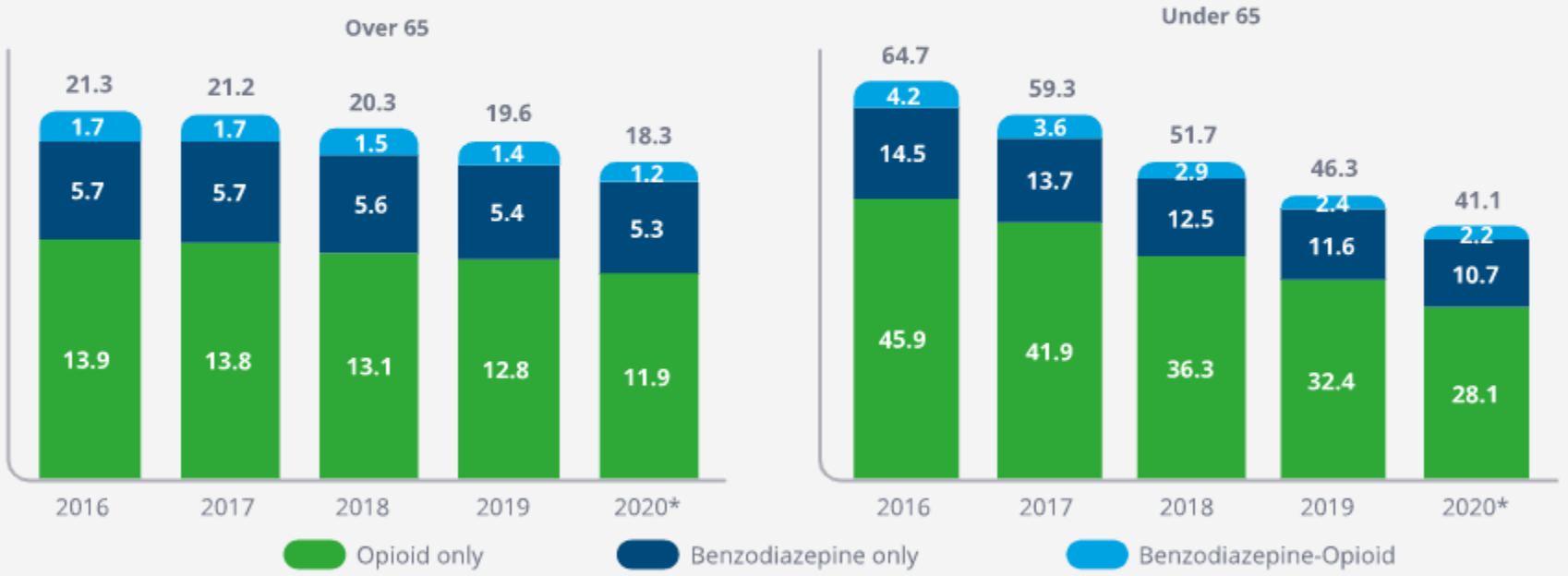
Exhibit Notes: Opioids include medicines for pain management and exclude those medicines used for evidence-based opioid use dependency or overdose recovery, which are classified under MAT for this analysis. Higher denotes above the mean; lower denotes below the mean.

Report: Prescription Opioid Trends in the United States. IQVIA Institute for Human Data Science, December 2020.

MAT: Medication assisted treatment such as Buprenorphine, Methadone and Naltrexone

Medicine Usage Trends

Co-prescribing benzodiazepines and opioids — consistently identified as increasing the risk of abuse and/or death — has declined in recent years, but still occurs in more than 1 million patients over the age of 65



Source: IQVIA U.S. Prescription Claims (LRx), Oct 2020; IQVIA Institute, Nov 2020

Exhibit Notes: 2020* includes data through September and an estimation of Q4 2020 data based on previous year trend. Patient counts are unprojected based on claims data, representing roughly 90% of total claims, and not grossed up to a full national level. Benzo-opioid therapy includes patients with prescriptions for opioids and a benzodiazepine within seven days of each other.

Report: Prescription Opioid Trends in the United States. IQVIA Institute for Human Data Science, December 2020.

Approach to Underwriting

Red flags

- Multiple driving infractions
- Accidental injuries
- Young males
- Affluent, high-profile
- Erratic behavior/deterioration in work or school performance
- Arrhythmias
- Multiple prescribers
- Applicant wants more pills than doctor is willing to prescribe
- Applicant uses other people's meds
- Multiple other psychoactive and/or sedating medications
  - History of Use of Methadone or Suboxone
  - Benzos
  - Muscle relaxers

Most Prevalent Chronic Pain Conditions

- Back Pain: Can affect 8/10 people in their lifetime
- Headaches: Migraines, Tension, Cluster
- Arthritides
- Fibromyalgia
- Neuropathic: Diabetic, Carpal Tunnel, Spinal Cord and MS
- Cancer
- Psychiatric

Ratings

Short-term or episodic (as-needed or prn) use without criticism or inappropriate use can generally be rated quite favorably

Chronic use with stable doses and no criticism or inappropriate use can also be rated favorably

Current chronic use with criticism, inappropriate use or other red flags is usually highly rated to decline

Caution is warranted in individuals with a history of depression even if the depression is not ratable

Product Name	Generic Name / Strength	Priority	Fill Date	Doctor	Pharmacy	Quantity	Days Supply
STELARA	Ustekinumab Soln Prefilled Syringe 90 MG/ML	HIGH	2/20/2020	George	BRIOVARX OF INDIANA LLC	1	56
STELARA	Ustekinumab Soln Prefilled Syringe 90 MG/ML	HIGH	12/27/2019	George	BRIOVARX OF INDIANA LLC	1	56
STELARA	Ustekinumab Soln Prefilled Syringe 90 MG/ML	HIGH	11/8/2019	George	BRIOVARX OF NEVADA, LLC	1	56
STELARA	Ustekinumab Soln Prefilled Syringe 90 MG/ML	HIGH	10/15/2019	George	ECHO PHARMACY	1	56
STELARA	Ustekinumab Soln Prefilled Syringe 90 MG/ML	HIGH	8/27/2019	George	SAVEDIRECTRX	1	56
OXYCODONE/ACETAMINOPHEN	Oxycodone w/ Acetaminophen Tab 5-325 MG	HIGH	4/28/2019	Stoldt	RX CONSULTANT PHARMACY	10	2
FERROUS SULFATE	Ferrous Sulfate Tab 325 MG (65 MG Elemental Fe)	LOW	12/12/2017	Shubhakar	WALMART PHARMACY	60	30
PREDNISONE	Prednisone Tab 10 MG	MEDIUM	12/12/2017	Shubhakar	WALMART PHARMACY	42	12
FERROUS SULFATE	Ferrous Sulfate Tab 325 MG (65 MG Elemental Fe)	LOW	4/28/2015	Krinsky	QUICKAID PHARMACY INC	60	30

Ratings

Cross-addiction

- Other drugs especially benzos
- Alcohol
- Very high risk/decline

Recovery

- Generally long-term recovery is not achieved without an initial in-patient treatment regimen followed by continued counseling and support group attendance like Narcotics Anonymous
- Generally long postpone period before consideration is possible

Summary

- Alcohol and drug abuse is an ever-increasing problem encountered by underwriters, with significant mortality implications
- Distinguishing appropriate and inappropriate use is the key to underwriting these individuals
- Recovery is possible, but postpone periods are required before we can reconsider
- New CDC guidelines intended to curtail use and abuse of narcotics
- MME stands for Morphine Milligram Equivalent
- Risk for overdose increases substantially as the MME increases
  - RR of overdose in individuals taking 20 to < 50 MME is between 1.3- 1.9
  - RR of overdose in individuals taking 50 to < 100 MME is between 1.9- 4.6
  - RR of overdose in individuals taking ≥100 MME is between 2.0 – 8.9

Drug abuse, Opioids Adult ratings

INFORMATION | ADULT RATINGS | LTC RATINGS | MED EX RATINGS | ANNUITY RATINGS

Ratings

Risk classification	Life	ADB	CI	TPD	DI	WOP
Current use:						
History of abuse:						
Additional considerations:						

Risk classification	Life	ADB	CI	TPD	DI	WOP
Current use:						
Opioids prescribed by a doctor, without evidence of abuse			Rate as: Chronic pain			
Otherwise	P	P	P	P	P	P

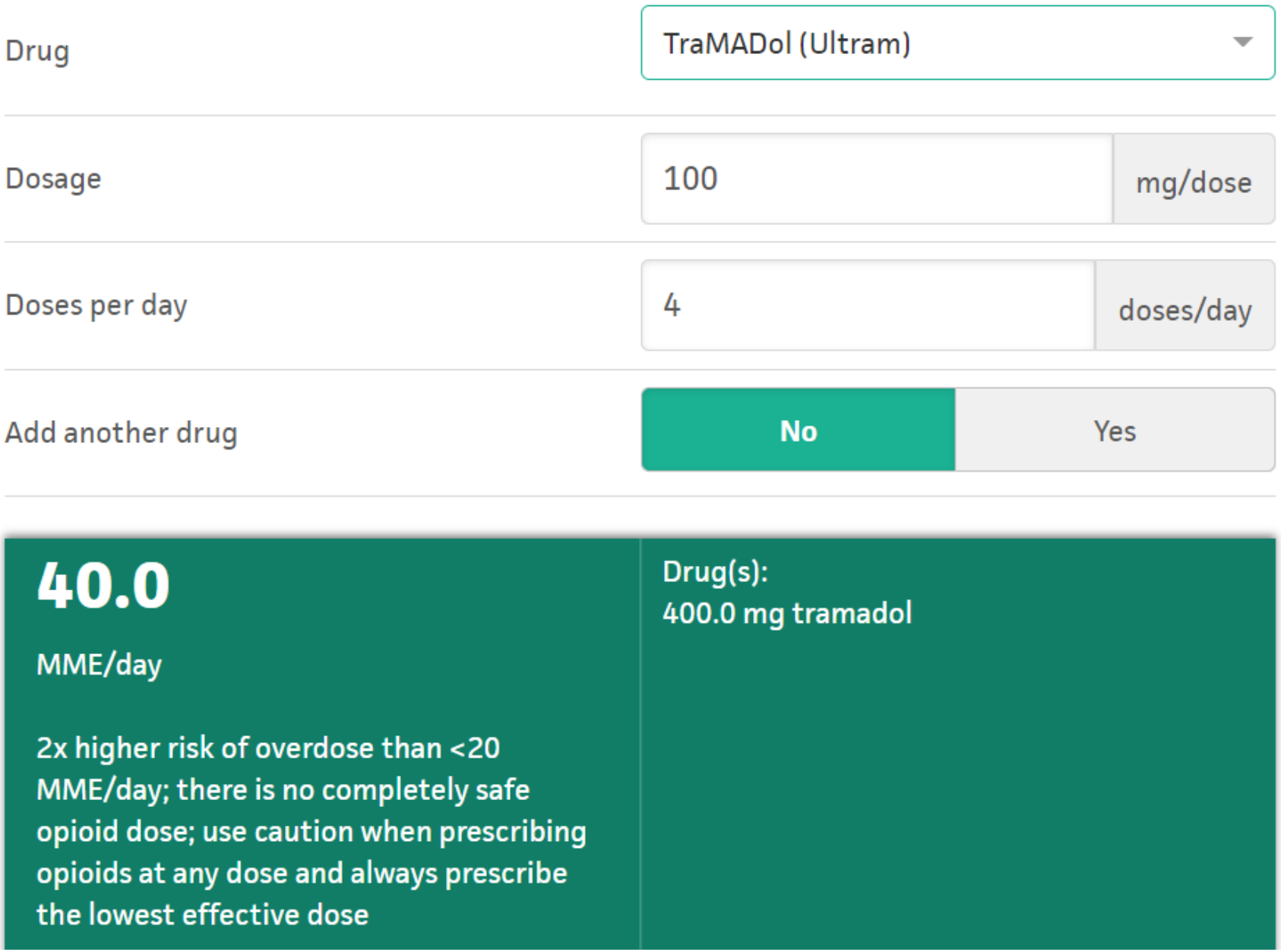
Chronic pain Adult ratings

INFORMATION ADULT RATINGS

Add personal note

For assistance in converting opioid medication to the morphine equivalent, please review the following information:

- **Conversion table** located on the Chronic pain information page
- **Calculating total daily dose of opioids for safer dosage** from the CDC
- **Opioid conversion calculator** from MDCalc.com



Go to conversion Calculator link in Life Guide: example of Tramadol or Ultram 100 mg qid (4 x daily)

Add another drug	No / **Yes**
Drug	HYDROcodone (Vicodin, Norco, Lortab)
Dosage	10 mg/dose
Doses per day	4 doses/day
Add another drug	**No** / Yes

80.0

MME/day

3.7x higher risk of overdose; strongly consider non-opioid analgesics and decreasing daily opioid dose

Drug(s):
400.0 mg tramadol
40.0 mg hydrocodone

add the second drug on RX such as Vicodin 10/325 qid (4 x daily)

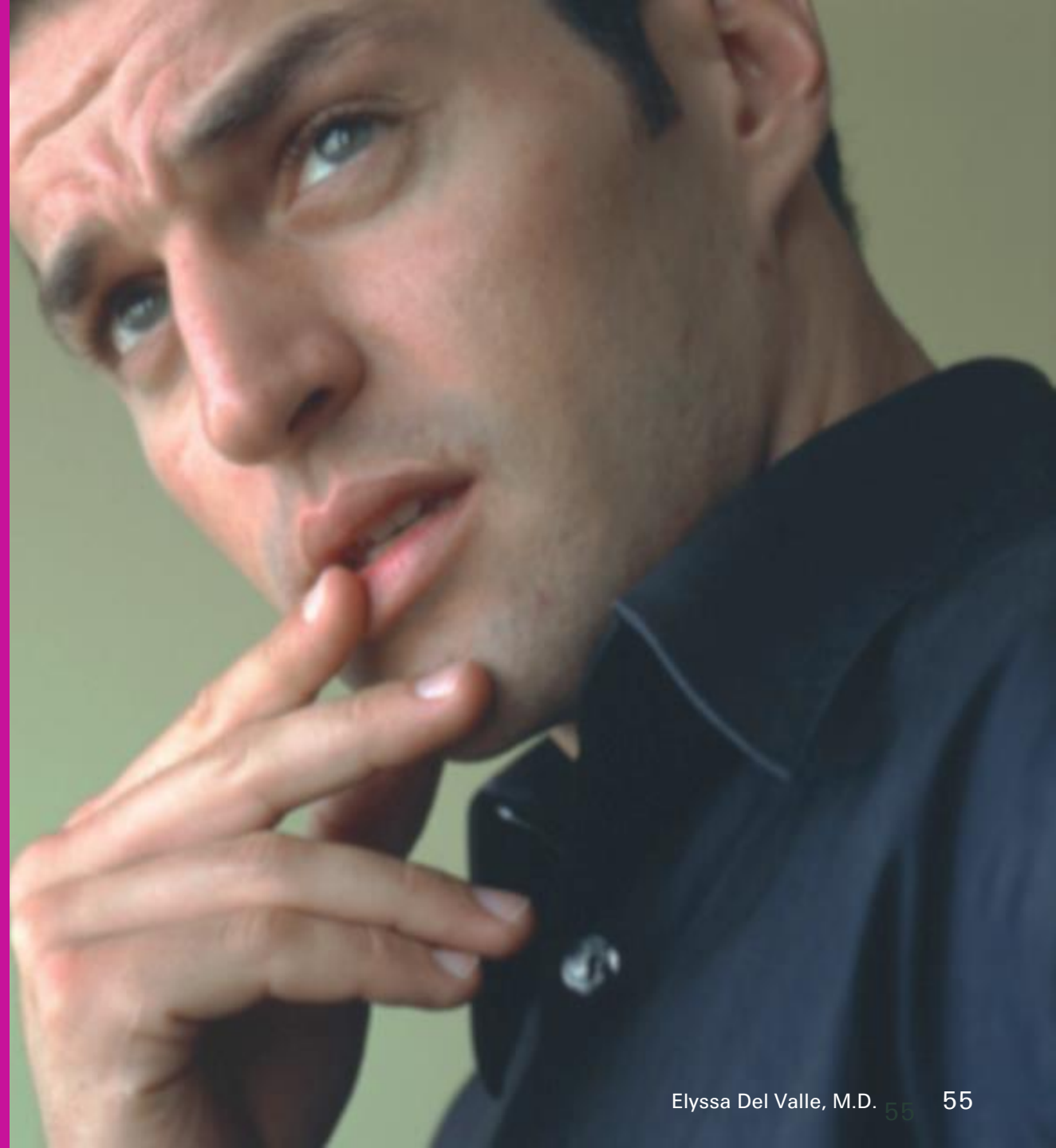
Risk classification	Life	ADB	CI	TPD	DI	WOP
Opioid treatment:						
Non-prescribed	D	D	D	D	D	D
Prescribed (MME - morphine mg equivalents):						
Rate using higher of MME/day or non-opioid treatment severity above:						
Less than 50 mg MME/day	+0	+0	Rate for cause			
50 to less than 60 mg MME/day	+50	+0	D	D	D	D
60 to less than 70 mg MME/day	+75	+0	D	D	D	D
70 to less than 80 mg MME/day	+100	+0	D	D	D	D
80 to less than 90 mg MME/day	+125	+0	D	D	D	D
90 to less than or equal to 100 mg MME/day	+150	+0	D	D	D	D
Greater than 100 MME/day	Refer Medical Officer, usually D	D	D	D	D	D
MME/day unknown	Refer Medical Officer, consider rating as 90 to 100 MME/day above					

Case 1

- 52 yo male contractor applying for 1 mill
- Hx of lumbar fusion surgery 2008; ESI 2010-11; Treated at Pain Clinic currently
- PMH: Depression, Anxiety, OSA on Cpap
- SHx: Quit smoking 2011; Hobby Boating on weekends; ETOH 2-3 drinks/day;
- MVR: DUI 2011
- RX inquiry: Hydrocodone/Acetaminophen 10/325 mg #120 tablets, Soma (Carisoprodol) 350 mg #90, Alprazolam 1mg #60, Viagra, Flonase, OTC Allegra.
- Paramed: 5'10" 205 lbs BP 145/90.
- Insurance Labs: normal however AST 50 ALT 20, HDL 82.

What Else Do You Want to Know?

- How many refills (risk increases as number of fills increase
- Number of different narcotics prescribed
- As needed vs scheduled vs both (combination of both is highest risk)
- Other types of psychoactive or sedating medications (i.e. muscle relaxers, sleeping pills, anxiolytics, antidepressants, medical MJ and OTC allergy meds)
- Alcohol use
- Multiple providers
- Increased risk in those with OSA



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- Paramed: 5'10" 205 lbs BP **145/90**
- Insurance Labs: normal however **AST 50 ALT 20, HDL 82**

Case 2

- 52 year old female applying for 2 million whole life policy
- Medical Hx: migraine headaches, Fibromyalgia and GAD.
- Surgical Hx: Breast implants, maxillofacial cosmetic surgery
- Social Hx: Divorced, 2 yrs ago moved from LA to CT, works as office manager for her brother's internal medicine practice in CT. Smoker ½ ppd x 20 yrs and quit 2016. ETOH 3 glasses wine per week
- Family Hx: unremarkable other than father died age 62 of lung cancer

Case 2

- RX inquiry: 7/21: Relpax 40 mg, HCTZ 25 mg, Amitiza (Lubiprostone), Darvocet
- APS: 1/21 Office note: Reported increased migraines unrelieved with Relpax. Also was sick when on vacation in Florida over Xmas with flu and still with cough, requesting Tussionex as it was effective in past. Prescribed Tussionex elixir 4 oz and given #12 Percocet 5/325. Referred to neurology.
- 2/21 Office note: Cannot get into neuro for another 2 months. Requesting more Percocet and when refused, asked for Fioricet. Given #20 Fioricet and with recommendation to start Amitriptyline 10 mg at bedtime and a week later to titrate up to 2 tablets until she sees neurologist.
- 4/21 Urgent Care visit: URI symptoms. Cough, no fever. RX: Augmentin, Tussionex elixir 4 oz and Ultracet #30.
- 6/21 Establishing with New PCP with chief complaint of headache and constipation. Wearing dark glasses in exam room complaining of photophobia and nausea. She described daily headaches of mild severity but once a week would get a severe HA often requiring Percocet 10/325. She was also to fly in 2 weeks to LA, requesting Xanax. And lastly, requested RX for constipation as no relief with OTC laxatives.

When agent asked for Neurology APS, there were none.

Case 2

- Paramed: BP 145/88, 5’4”, 135 lbs
- HOS: + Cotinine, otherwise neg
- Labs: ALT 95, AST 75, T. Bili 1.9, GGT 75, BUN 28, Creatinine 1.5

  Chol 205, HDL 35, CDT Negative, Hep B S Ag nonreactive

  Hep C AB nonreactive

LET’S DISCUSS AS A GROUP. Next slide has all info on one place to view

52 yo female with hx migraines, fibromyalgia and GAD…

RX inquiry: 7/21: Relpax 40 mg, HCTZ 25 mg, Amitiza (Lubiprostone), Darvocet

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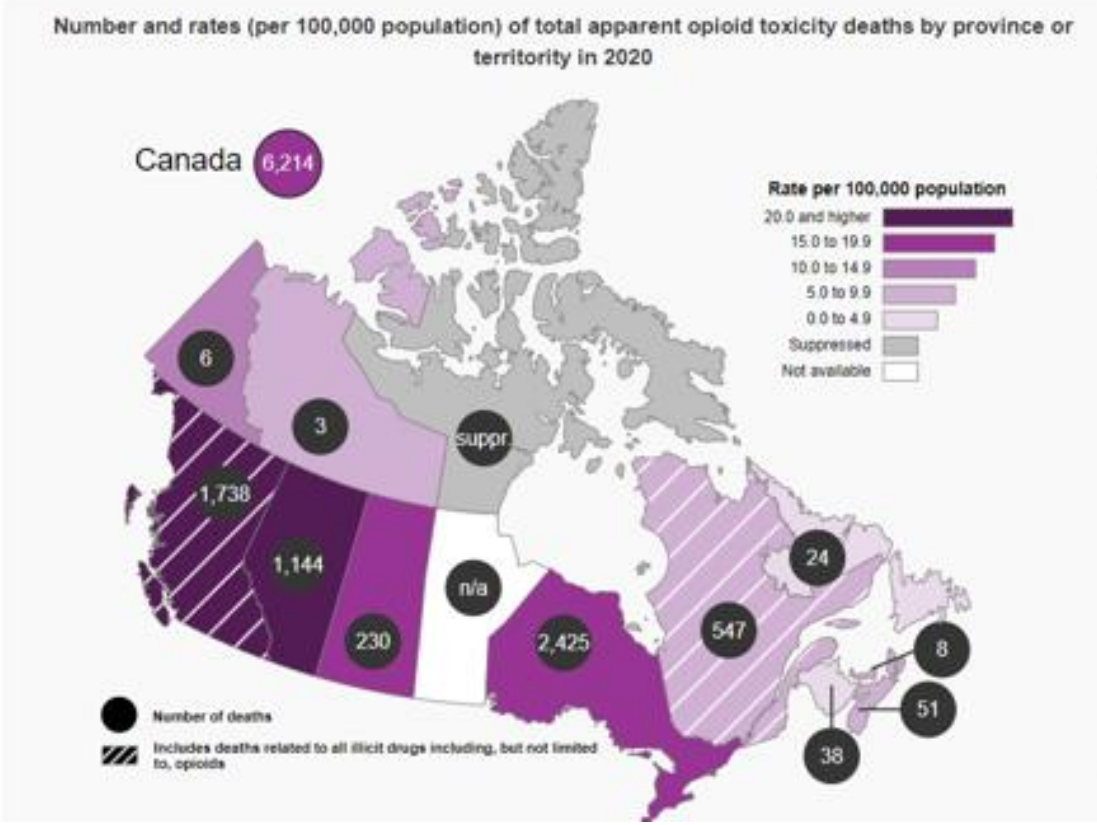
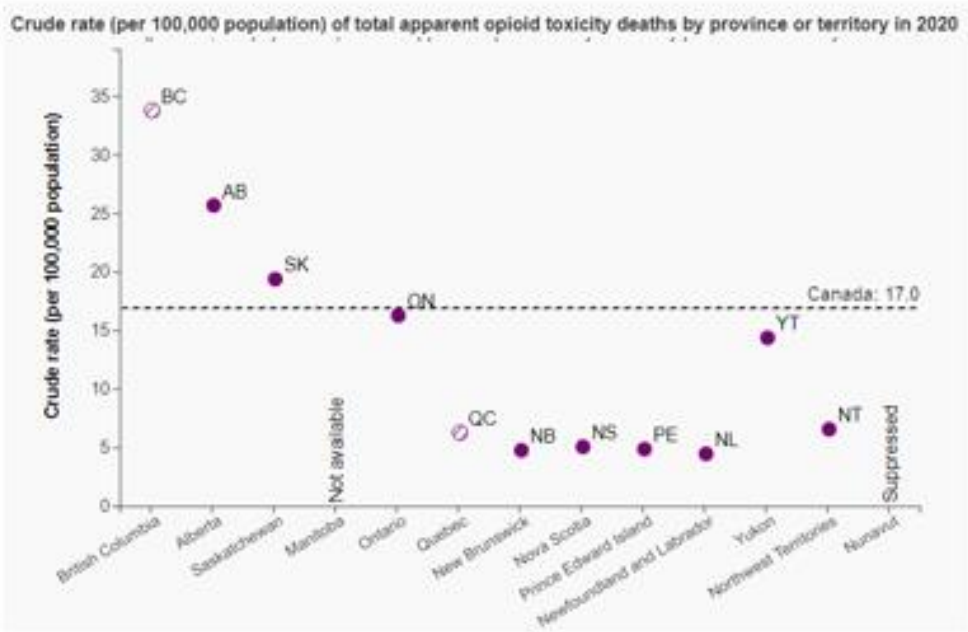
- **Labs:** **ALT 95, AST 75**, T. Bili 1.9, **GGT 75**, BUN 28, Creatinine 1.5
  Chol 205, HDL 35, CDT Negative, Hep B S Ag nonreactive
  Hep C AB nonreactive

Final thoughts: How Covid has impacted recent rise in opioid deaths

Opioid Related Harms in Canada (June 2021) Infobase.Canada.ca

Opioid Overall Deaths in 2020 by number and rate

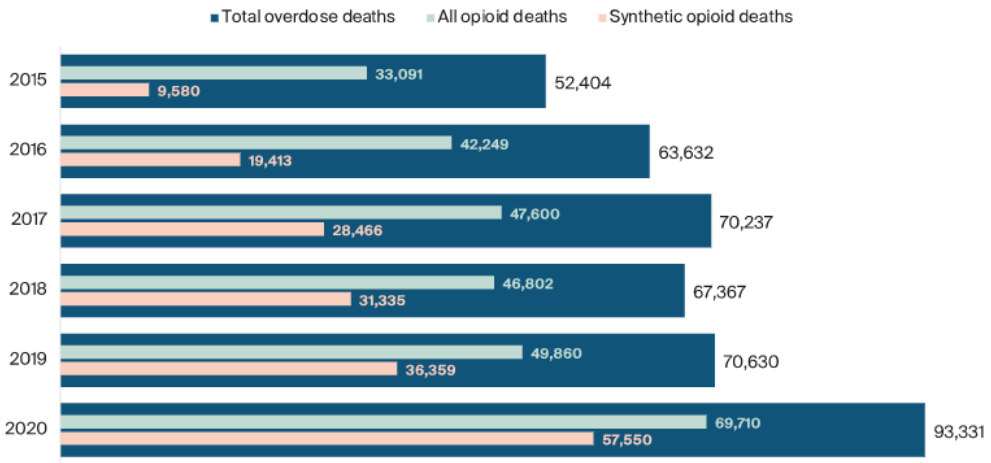




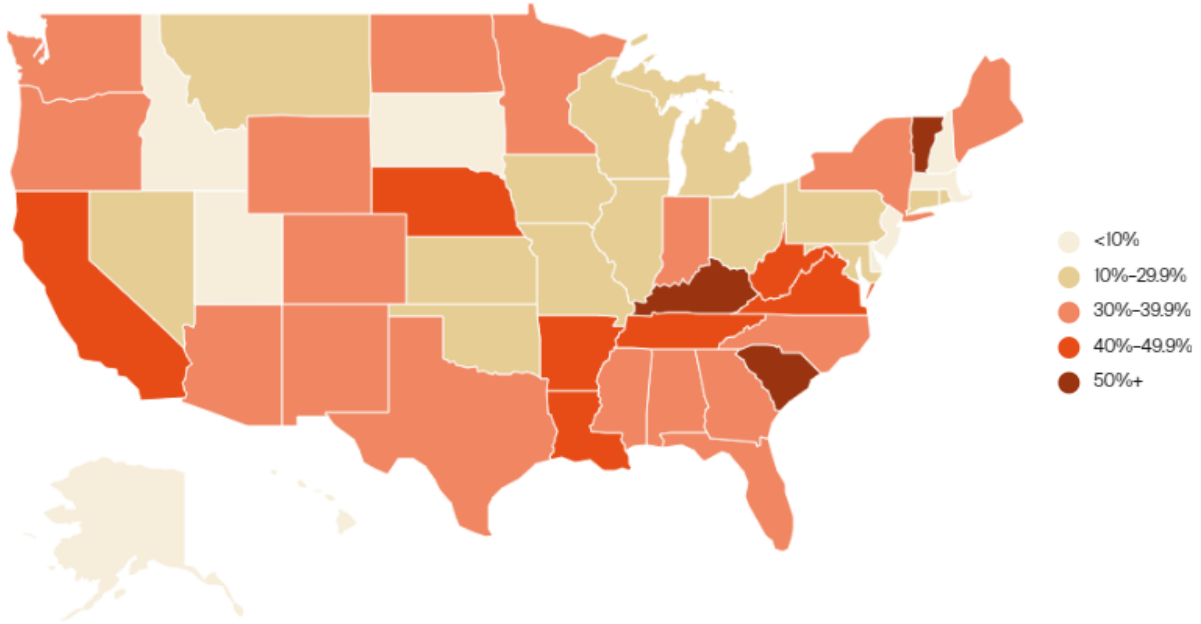
Overdose deaths increased significantly in almost every state during 2020

Overdose deaths exploded to more than 90,000 in 2020, and synthetic opioids were involved in more than 60 percent of all overdose deaths.

Annual drug overdose deaths



Estimated percent increase in provisional overdose deaths, Jan.–Dec. 2020 vs. Jan.–Dec. 2019



Note: Categories represent percent increase for provisional predicted overdose deaths in 2020 vs. 2019. Predicted totals from the Centers for Disease Control and Prevention are not final data and are subject to change. The District of Columbia had an estimated increase of 39%, South Dakota had an estimated decrease of –16%, and New Hampshire had an estimated decrease of –1%.

Data: National Vital Statistics System, Provisional Drug Overdose Death Counts.

Source: Jesse C. Baumgartner and David C. Radley, "The Drug Overdose Mortality Toll in 2020 and Near-Term Actions for Addressing It," *To the Point* (blog), Commonwealth Fund, July 15, 2021, updated Aug. 16, 2021.

Natural opioids (morphine, codeine) are those alkaloids that occur in plants such as opium poppy
Synthetic are created chemically. Oxycontin is semi-synthetic. Fentanyl, Tramadol, Methadone are synthetic

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