Opiates, the Modern Fallen Angel

Gary G. Leonhardt, MD, DFAPA

Medical Director

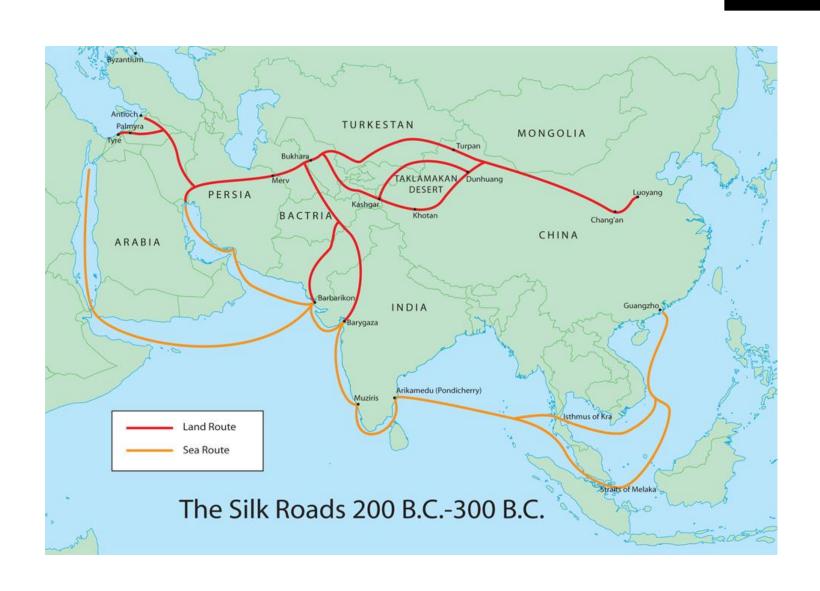
PORT Health Services

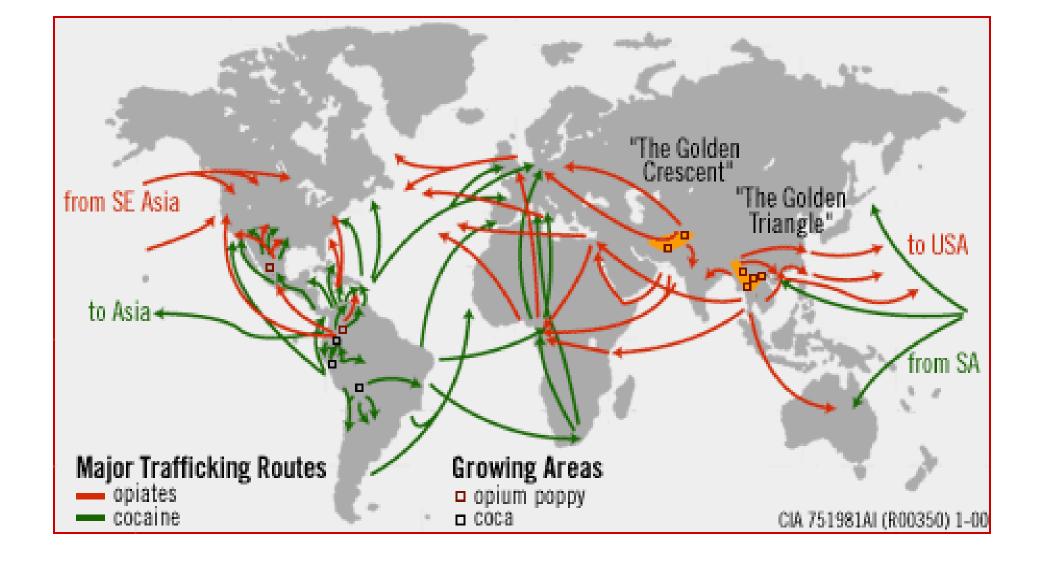
December 5, 2018

Earliest reference to opium growth and use is in 3,400 B.C. in lower Mesopotamia (Southwest Asia).











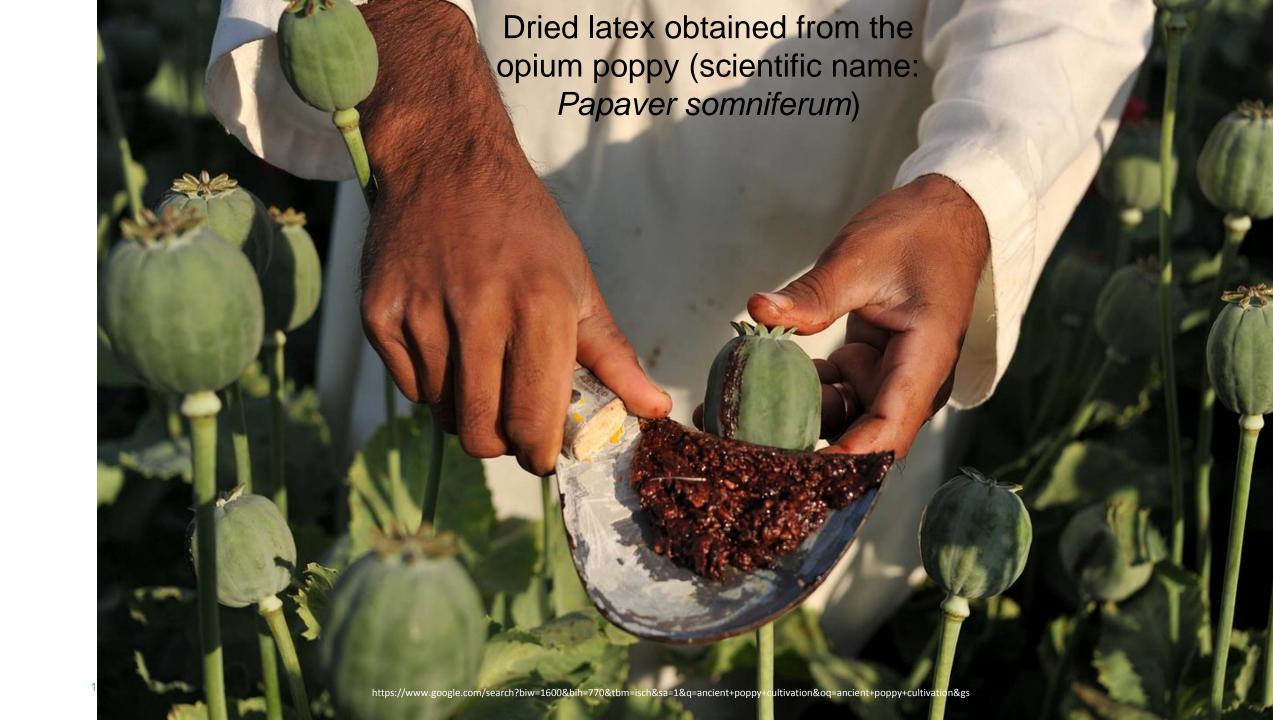
Opium-An Ancient Medicine

- KNOWN TO ANCIENT GREEK AND ROMAN PHYSICIANS AS A POWERFUL PAIN RELIEVER
- IT WAS ALSO USED TO INDUCE
 SLEEP AND TO GIVE RELIEF TO
 THE BOWELS
- ITS PLEASURABLE EFFECTS
 WERE ALSO NOTED
- PROF. DR. OTTO WILHELM THOMÉ.







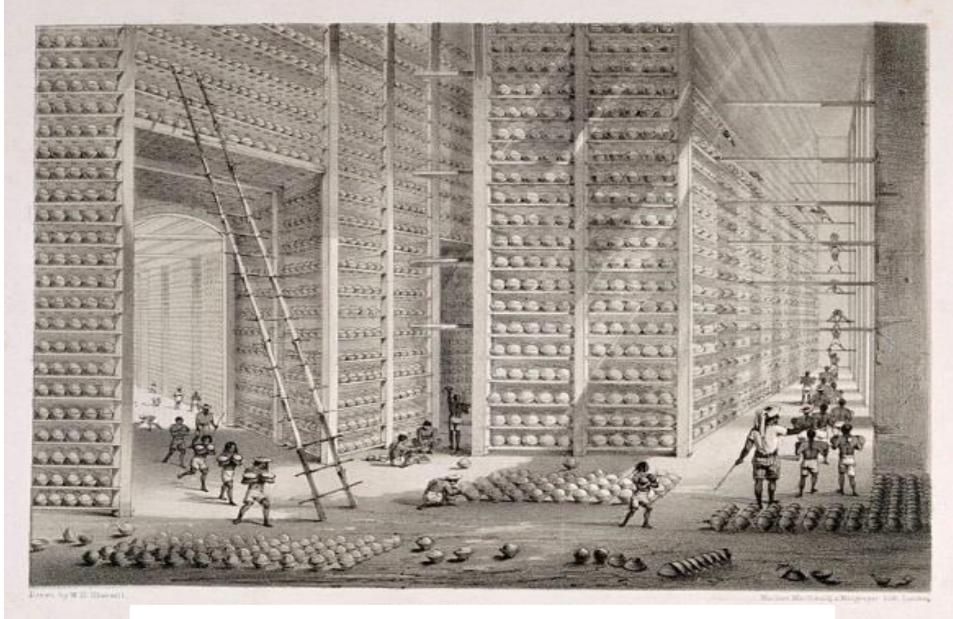


"All substances are poison. The right dose differentiates a poison and a remedy"

Paracelsus, 1493-1541 AD

Opium War (1839–1842)





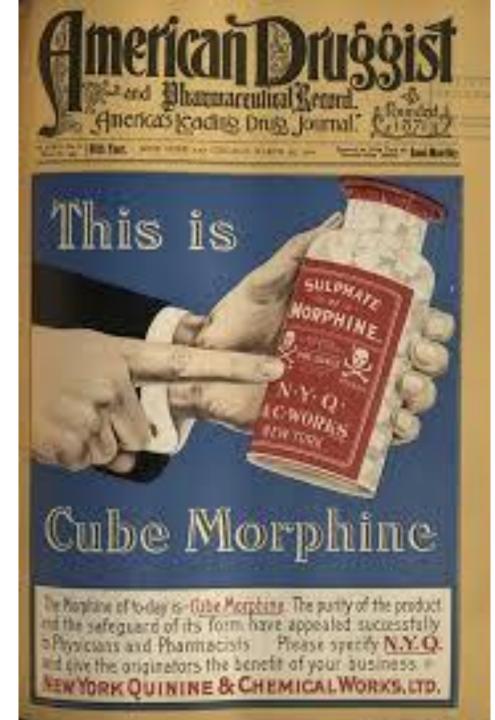
Storage of opium at a British East India Company warehouse, c. 1850

1803 - morphine separated from opium

- Increased dependence potential
- Morphine 10 X opium potency
- Morpheus, the Greek God of dreams

1856 - development of hypodermic needle

- Use became widespread
- Doctors began injecting opium solutions (thought to sidestep addiction, thought to be purer & safer)
- Used during Civil War for injuries (dependency known as "soldier's disease")

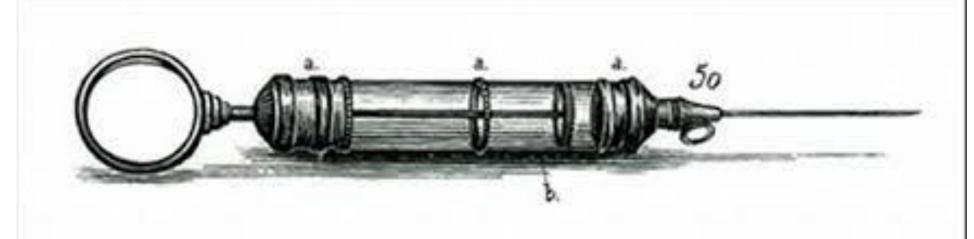


Morphine

...Hailed as a miracle drug

• ...widely prescribed by physicians in the mid-1800s.

https://www.deamuseum.org/ccp/opium/history.html https://www.google.com/search?tbm=isch&source=hp&biw=1600&bih=7 70&q=cube+morphine&oq=cube+morphine&gs







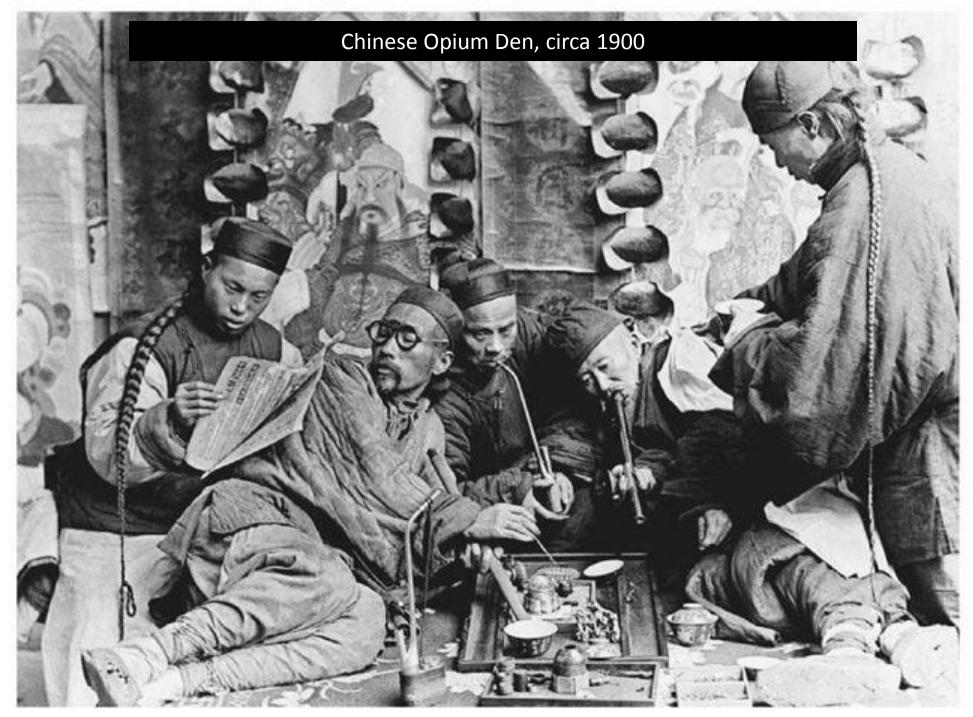












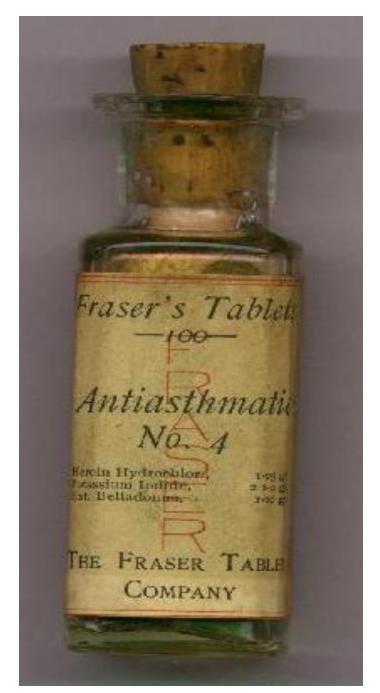


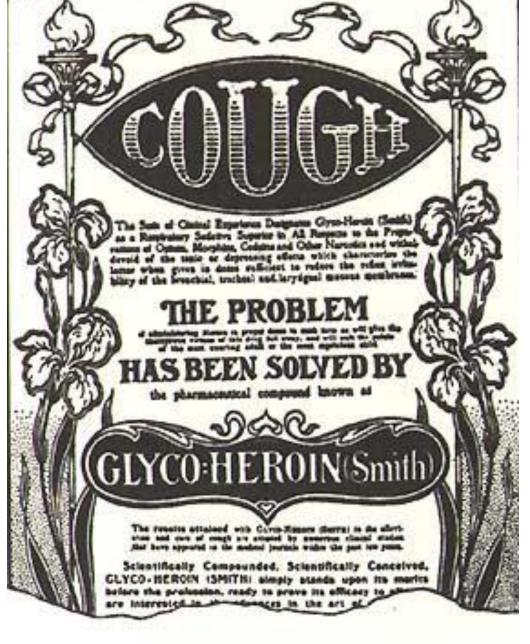
Heroin

- FIRST SYNTHESIZED FROM MORPHINE IN 1874
- BAYER INTRODUCED HEROIN FOR MEDICAL USE IN 1898
- BY 1903 HEROIN ABUSE HAD RISEN TO ALARMING LEVELS IN THE UNITED STATES
- ALL USE OF HEROIN WAS MADE
 ILLEGAL BY FEDERAL LAW IN 1924









Opiate remedies of the 19th Century



'By 1914...~ 1:400 U.S. Citizen addicted to some form of opium.

mostly women

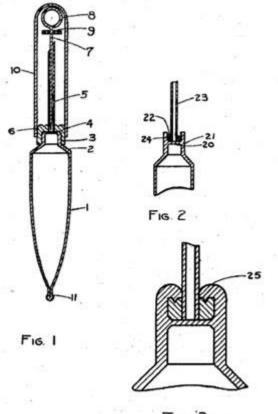
women















Drug Schedules

SCHEDULE I

no

Heroin



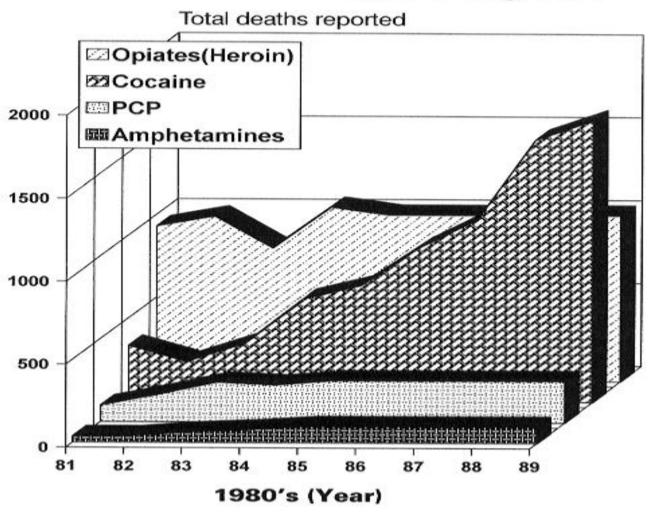


"He knew every pill he'd eat Would be one less on the street Elvis took 'em all for you and me..."

"Elvis Was a Narc" Pinkerd and Bowden

DRUG RELATED DEATHS

Number of Deaths Per Year Attributed to Illegal Drug Use



Data source: Narcotics Intelligence Nat. Narc. Intelligence Consumers Comm. & Pres. Comm., Am. Hab. 1986. Pp15-68.



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SPECIALTIES & TOPICS * FOR AUTHO

Editor's Note: For reasons of public health, readers should be aware that this letter "heavily and uncritically cited" as evidence that addiction is rare with opioid therapy describe its history.

CORRESPONDENCE

ARCHIVE

Addiction Rare in Patients Treated with Narcotic

N Engl J Med 1980; 302:123 January 10, 1980 DOI: 10.1056/NEJM19800110302022

Article

Citing Articles (257)

To the Editor:

Recently, we examined our current files to determine th hospitalized medical patients 1 who were monitored conpatients who received at least one narcotic preparation well documented addiction in patients who had no historia considered major in only one instance. The drugs impli-Percodan in one, and hydromorphone in one. We convidrugs in hospitals, the development of addiction is rate addiction.



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 patients' 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 inmedical patients with no history of addiction.

JANE PORTER
HERSHEL JICK, M.D.
Boston Collaborative Drug
Surveillance Program
Boston University Medical Center

Waltham, MA 02154

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

- Prior to 2000, there was a growing public perception that pain was being medically undertreated.
- In late 2000, Congress passed into law a provision that declared the ten-year period that began January 1, 2001, as the Decade of Pain Control and Research.
- Also in 2000, JCAHO released new standards for the assessment and management of pain in the facilities they accredit and certify. (5th vital sign)

106TH CONGRESS 2D SESSION

S. 3163

To designate the calendar decade beginning on January 1, 2001, as the "Decade of Pain Control and Research".

IN THE SENATE OF THE UNITED STATES

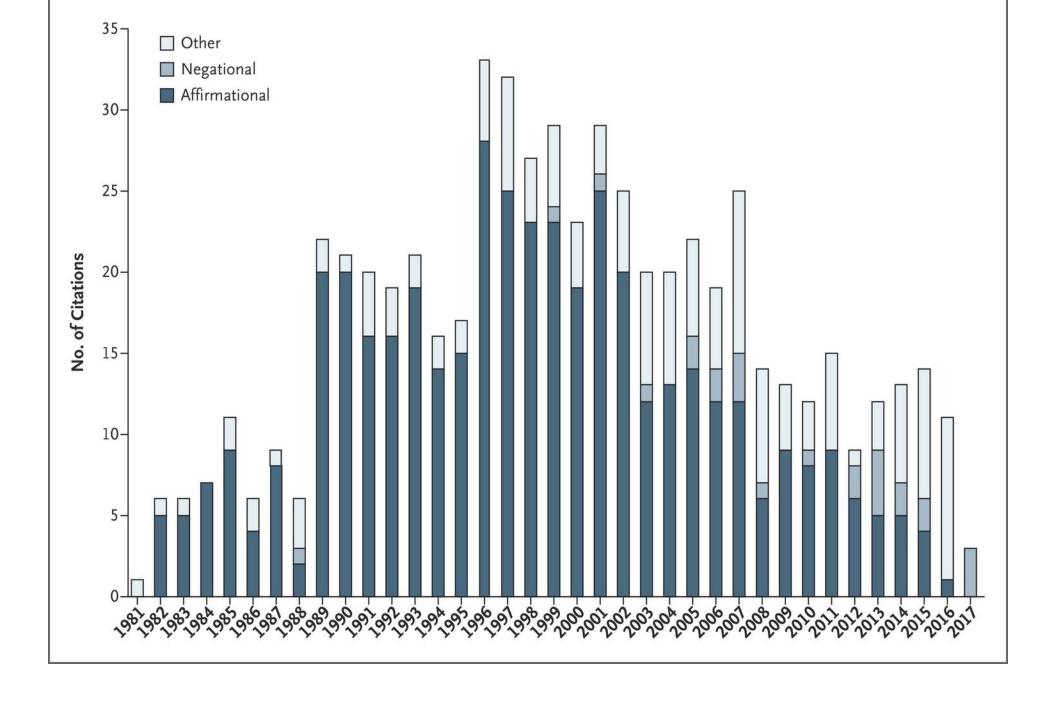
October 5 (legislative day, September 22), 2000

Mr. Hatch introduced the following bill; which was read twice and referred to the Committee on the Judiciary

A BILL

To designate the calendar decade beginning on January 1, 2001, as the "Decade of Pain Control and Research".

- 1 Be it enacted by the Senate and House of Representa-
- 2 tives of the United States of America in Congress assembled,

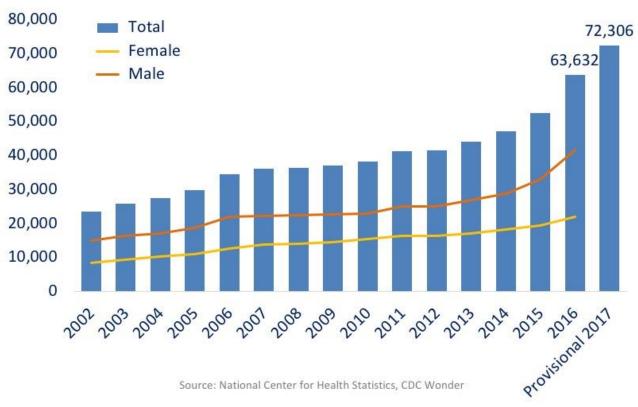






National Overdose Deaths

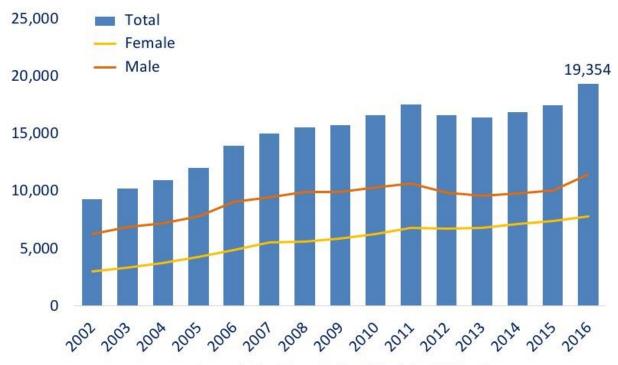
Number of Deaths Involving All Drugs



NIH National Institution Drug Abuse

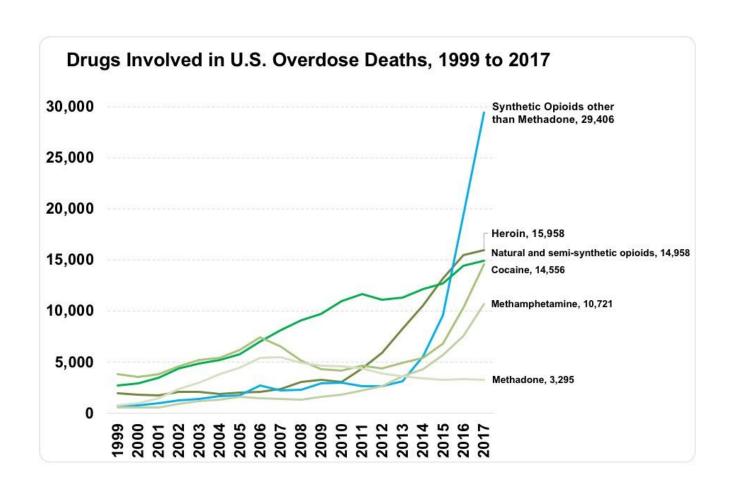
National Overdose Deaths

Number of Deaths Involving
Opioid Pain Relievers (excluding non-methadone synthetics)

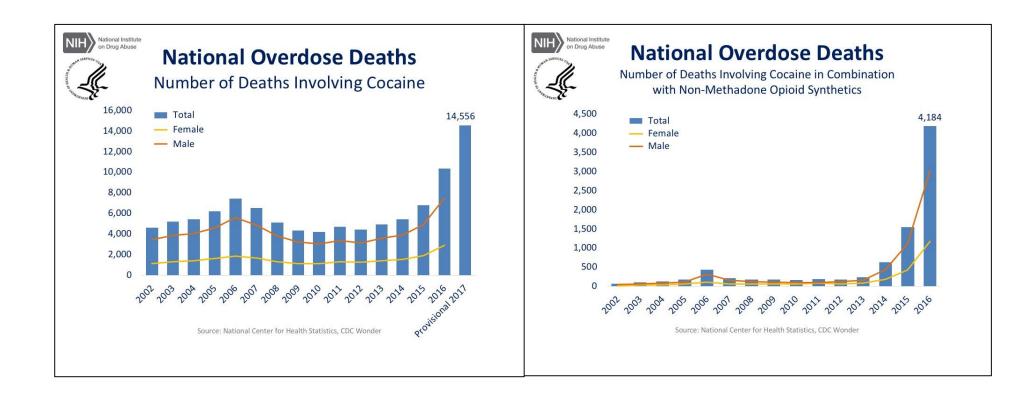


Source: National Center for Health Statistics, CDC Wonder

Times are a changin'...



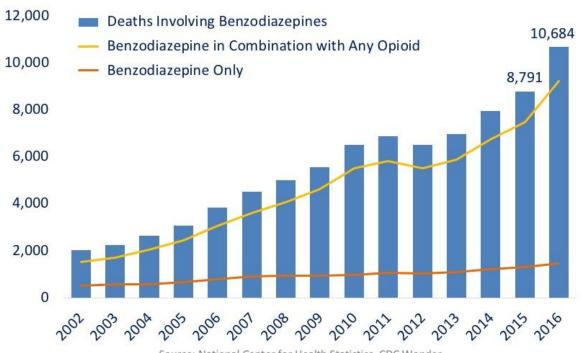
Cocaine...still a player







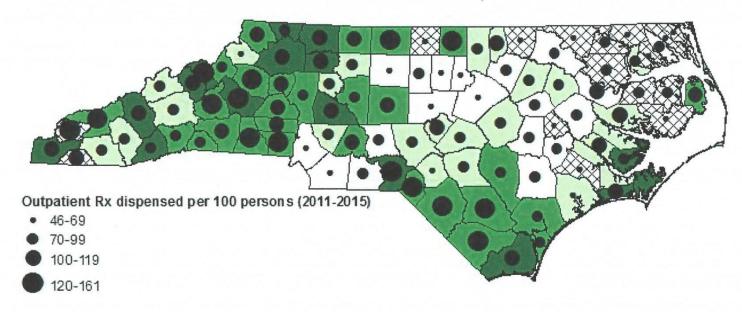
Opioid Involvement in Benzodiazepine Overdose



Source: National Center for Health Statistics, CDC Wonder

Rates of Unintentional/Undetermined Prescription Opioid Overdose Deaths & Outpatient Opioid Analgesic Prescriptions Dispensed

North Carolina Residents, 2011-2015



Overdo se rates per 100,000 persons (2011-2015)

- Rate not calculated, <5 deaths
- 0-4
- 5-7
- 8-11
- 12-24

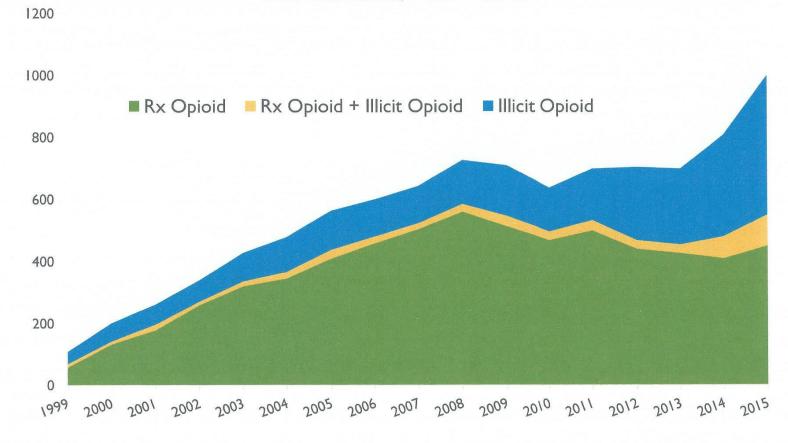
Data Source: Mortality- State Center for Health Statistics, NC Division of Public Health, 2011-2015/Population-National Center for Health Statistics, 2011-2015/Opioid Dispensing- Controlled Substance Reporting System, 2011-2015 Analysis: Injury and Epidemiology Surveillance Unit Overdose: (X40-X44 & Y10-Y14) and prescription opioid T-codes

Average mortality rate: 6.4 per 100,000 persons

Average dispensing rate: 82.9 Rx per 100 persons

Unintentional Rx and Illicit Opioid Deaths

NC Residents, 1999 - 2015



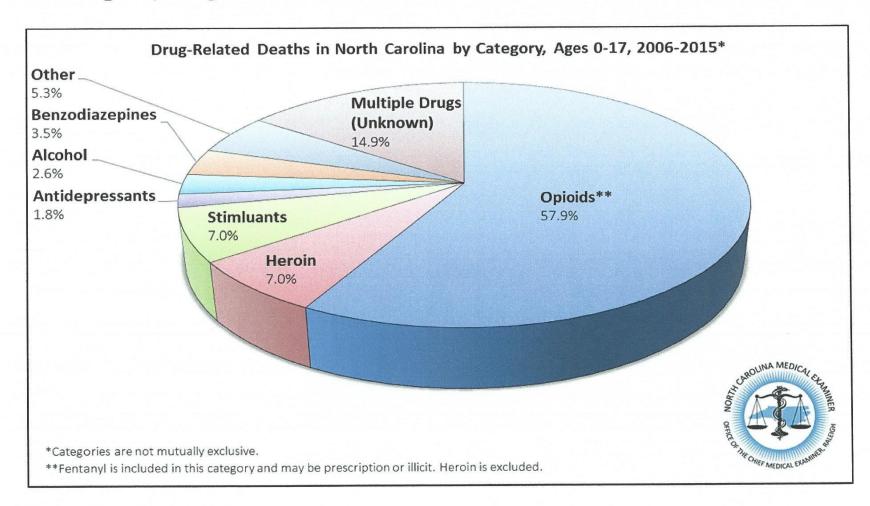
Source: N.C. State Center for Health Statistics, Vital Statistics-Deaths, 1999-2015 Unintentional medication/drug (X40-X44) with specific T-codes by drug type. Rx medication=T40.2 or T40.3 and Illicit Drug=T40.1 or T40.4.

Analysis by Injury Epidemiology and Surveillance Unit





Unintentional Drug-related Deaths in North Carolina by Category, Ages 0-17, 2006 to 2015 (T = 106)







Date: 11/18/2018 Print Report Download CSV

Doe, Jane

Risk Indicators

NARX SCORES

Narcotic Sedative Stimulant 340 000

720

Explanation and Guidance

OVERDOSE RISK SCORE

720 (Range 000-999)

ADDITIONAL RISK INDICATORS (3)

>= 4 opioid or sedative dispensing pharmacies in any 90 day period in the last 2 years

>= 5 opioid or sedative providers in any year in the last 2 years

100 MME total and 40 MME/day average

Explanation and Guidance

This NarxCare report is based on search criteria supplied and the data entered by the dispensing pharmacy. For more information about any prescription, please contact the dispensing pharmacy or the prescriber. NarxCare scores and reports are intended to aid, not replace, medical decision making. None of the information presented should be used as sole justification for providing or refusing to provide medications. The information on this report is not warranted as accurate or complete.

Explanation and Guidance





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Narx Score Summary

The distribution of Narx Scores in the population is such that the vast majority score low and very few score high.

Score	Percent of population
< 200	75%
> 500	5%
> 650	1%

















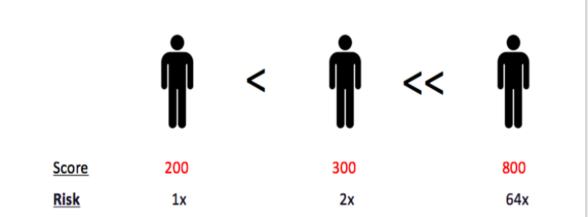




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Overview

The score was designed such that the risk of overdose death <u>doubles</u> approximately every 100pts.















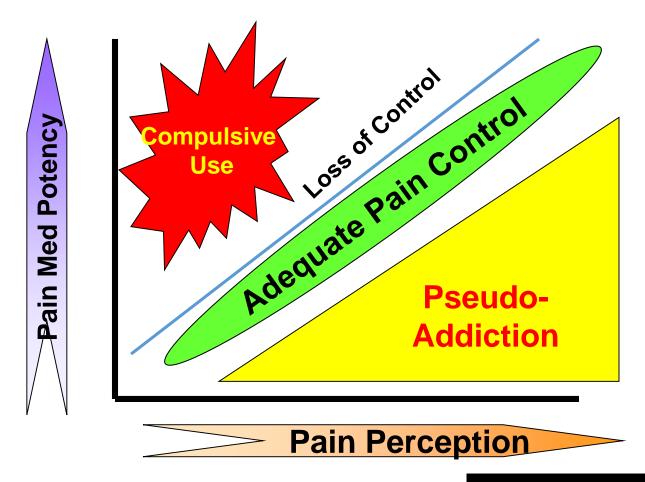








'Pseudo-addiction' and Addiction



Source of pain relievers for nonmedical use %

Friend or Relative	63.7
Doctor	16.6
Drug Dealer (or stranger)	12.5
Some Other Way	5.5

NSDUH 2005, among 18-25 year-olds (4.0 million respondents), Prevalence of nonmedical use of pain relievers: **12.4%**

SAMHSA, OAS. 2006, NSDUH Report, Issue 39.

Characteristics of Visit for Diversion

- seen right away
- end of day, or-after regular office hours
- specific drug
- 'allergic'
- 'can't take it'
- unusual knowledge of drugs
- textbook symptoms

