



A GLOBAL EPIDEMIC WITH COMMUNITY ROOTS

Halie Jones, LPC-S
Assistant Director of Substance Abuse Services
AltaPointe Health Systems, Inc.

WHAT IS AN OPIOID

- Opioids are a class of drug that include the illegal drug heroin as well as powerful pain relievers available by prescription, such as oxycodone (OxyContin®), hydrocodone (Vicodin®), codeine, morphine, fentanyl, and many others.
- Opioids are substances that act on opioid receptors to produce morphine-like effects.
- Opioids are more often used medically to relieve pain, and by people addicted to opioids.



EXAMPLES OF OPIATES

- Heroin (illegal)
- Morphine
- Oxycodone (trade names include: OxyContin and Percocet)
- Hydrocodone (trade names include: Vicodin and Lortab)
- Codeine
- Fentanyl



IMPACT ON THE BRAIN AND THE BODY

- These drugs are chemically related and interact with opioid receptors on nerve cells in the body and brain.
- Opioid pain relievers are generally safe when taken for a short time and as prescribed by a doctor, but they are frequently misused (taken in a different way or in a greater quantity than prescribed, or taken without a doctor's prescription) because they produce euphoria in addition to pain relief.
- Regular use – even as prescribed by a doctor – can produce dependence, and when misused or abused, opioid pain relievers can lead to fatal overdose



PRESCRIPTION OPIOIDS AND HEROIN (NIH)

- Drug overdose deaths involving prescription opioid pain relievers have increased dramatically since 1999.
- Concerted federal and state efforts have been made to curb this epidemic.
- In 2011, the White House released an interagency strategy for “Responding to America’s Prescription Drug Crisis”



PRESCRIPTION OPIOIDS AND HEROIN (NIH)

- Enacting this strategy, federal agencies have worked with states to **educate** providers, pharmacists, patients, parents, and youth about the dangers of prescription drug abuse and the **need for proper prescribing, dispensing, and disposal**; to **implement effective prescription drug monitoring programs**; to **facilitate proper medication disposal** through prescription take-back initiatives; and to **support aggressive enforcement** to address doctor shopping and pill mills and **support development of abuse-resistance formulations for opioid pain relievers.**



PRESCRIPTION OPIOIDS AND HEROIN (NIH)

- Improvements have been seen in some regions of the country in the form of decreasing availability of prescription opioid drugs and a decline in overdose deaths in states with the most aggressive policies (Johnson et al., 2014).
- However, since 2007, overdose deaths related to heroin have started to increase.
- The Centers for Disease Control and Prevention counted 10,574 heroin overdose deaths in 2014, which presents more than a fivefold increase of the heroin death rate from 2002 to 2014 (CDC, 2015).



PRESCRIPTION OPIOIDS AND HEROIN (NIH)

- In an effort to combat the intertwined problems prescription opioid misuse and heroin use, in March of 2015 the Secretary of Health and Human Services announced the “Secretary’s Opioid Initiative”, which aims to reduce addiction and mortality related to opioid drug abuse by (HHS takes strong steps, 2015):
 - Reforming opioid prescribing practices
 - Expanding access to the overdose-reversal drug naloxone
 - Expanding access to medication-assisted treatment for opioid use disorder



PRESCRIPTION OPIOIDS AND HEROIN (NIH)

- The relationship between prescription opioid abuse and the increase in heroin use in the United States is under scrutiny.
- These substances are all part of the same opioid drug category and overlap in important ways.
- Currently available research demonstrates:
 - Prescription opioid use is a risk factor for heroin use.
 - Heroin use is rare in prescription drug users.
 - Prescription opioids and heroin have similar effects, different risk factors.
 - A subset of people who abuse prescription opioids may progress to heroin use.
 - Increased drug availability is associated with increased use and overdose.
 - Heroin use is driven by its low cost and high availability.
 - Emphasis is needed on both prevention and treatment.



PRESCRIPTION OPIOID USE IS A RISK FACTOR FOR HEROIN USE

- Pooling data from 2002 to 2012, the incidence of heroin initiation was 19 times higher among those who reported prior nonmedical pain reliever use than among those who did not (0.39 vs. 0.02 percent) (Muhuri et al., 2013).
- A study of young, urban injection drug users interviewed in 2008 and 2009 found that 86 percent had used opioid pain relievers nonmedically prior to using heroin, and their initiation into nonmedical use was characterized by three main sources of opioids: family, friends, or personal prescriptions (Lankenau et al., 2012).

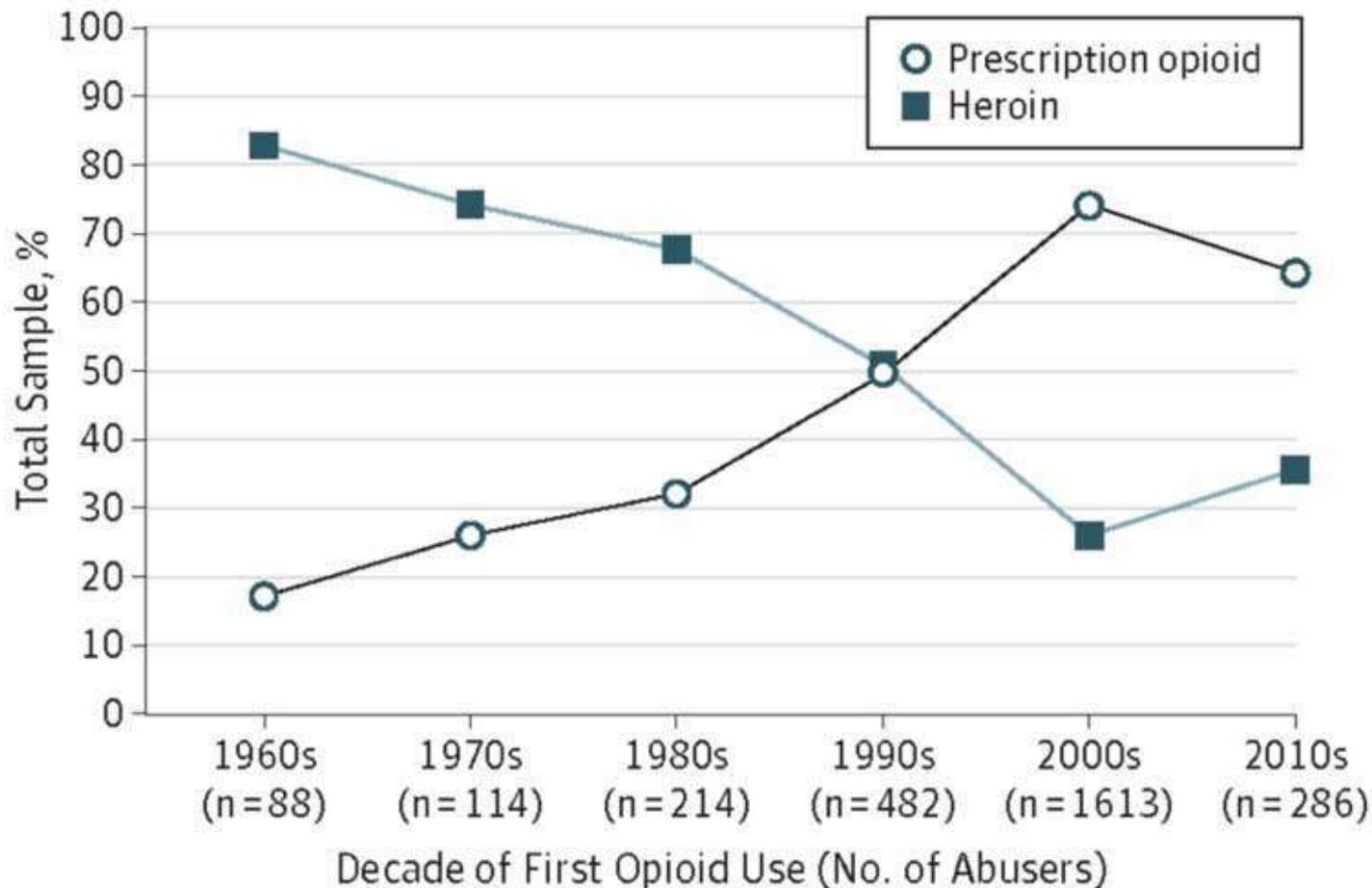


PRESCRIPTION OPIOID USE IS A RISK FACTOR FOR HEROIN USE

- This rate represents a shift of historical trends of people entering treatment for heroin addiction who began abusing opioids in the 1960s, more than 80 percent started with heroin.
- Of those who began abusing opioids in the 2000s, 75 percent reported that their first opioid was a prescription drug (Cicero et al., 2014).
- Examining national-level general population heroin data (including those in and not in treatment), nearly 80 percent of heroin users reported using prescription opioids prior to heroin (Jones, 2013; Muhuri et al., 2013)



PERCENTAGE OF THE TOTAL HEROIN DEPENDENT SAMPLE THAT USED HEROIN OR A RX OPIOID AS THEIR FIRST OPIOID OF ABUSE



HEROIN USE IS RARE IN PRESCRIPTION DRUG USERS

- While prescription opioid abuse is a growing risk factor for starting heroin use, only a small fraction of people who abuse pain relievers switch to heroin use.
- According to general population data from the National Survey on Drug Use and Health, less than 4 percent of people who had abused prescription opioids started using heroin within 5 years (Muhuri et al., 2013).
- This suggests that prescription opioid abuse is just one factor in the pathway to heroin.



HEROIN USE IS RARE IN PRESCRIPTION DRUG USERS

- Furthermore, analyses suggest that those who transition to heroin use tend to be frequent users of multiple substances (polydrug users) (Jones, et al., 2015).
- Additional analyses are needed to better characterize the population that abuses prescription opioids who transition to heroin use, including demographic criteria, what other drugs they use, and whether or not they are injection drug users.



PRESCRIPTION OPIOIDS AND HEROIN HAVE SIMILAR EFFECTS, DIFFERENT RISK FACTORS

- Heroin and prescription opioid pain relievers both belong to the opioid class of drugs, and their euphoric effects are produced by their binding with mu opioid receptors in the brain.
- Different opioid drugs have different effects that are determined by the way they are taken and by the timing and duration of their activity at mu opioid receptors.

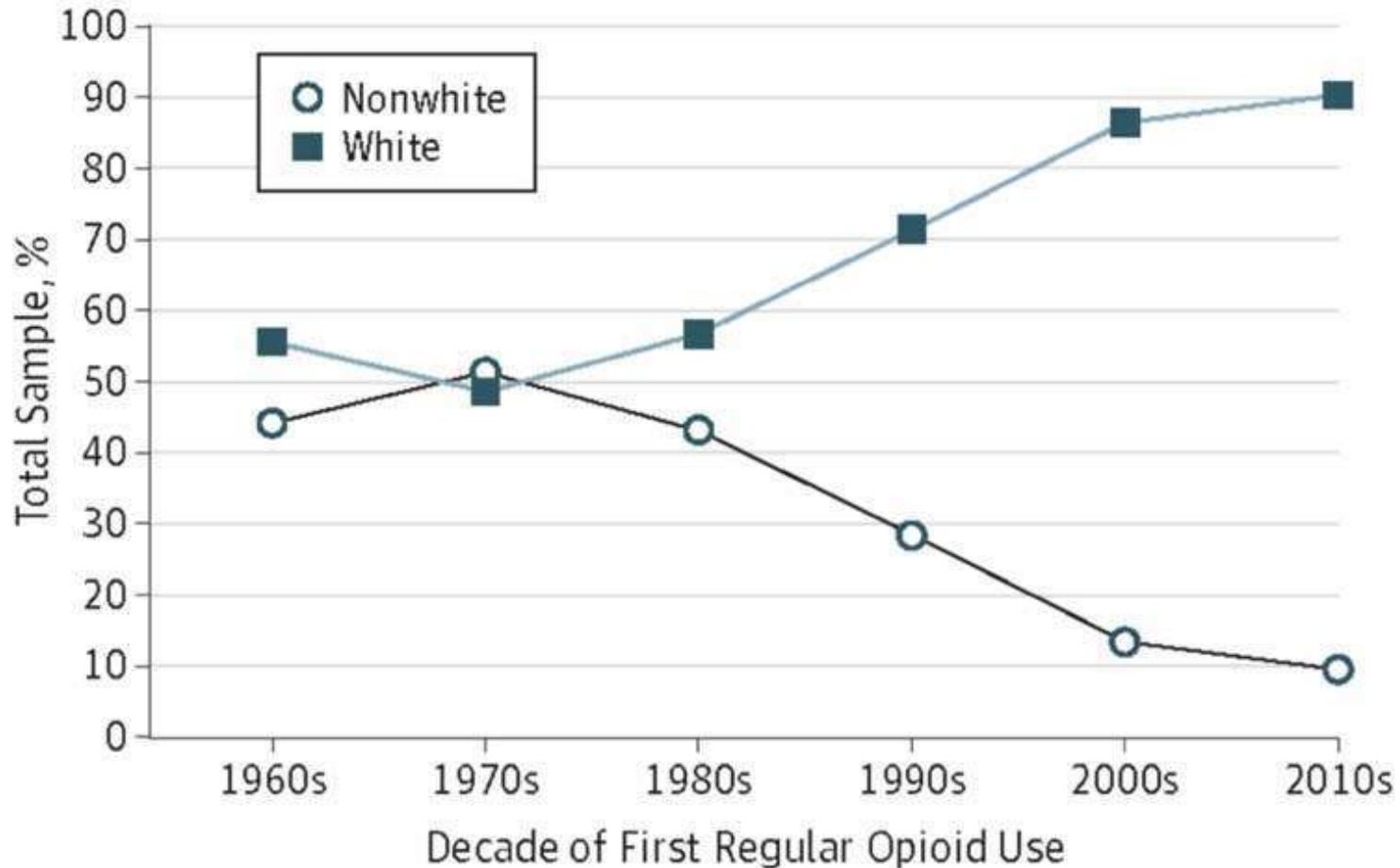


PRESCRIPTION OPIOIDS AND HEROIN HAVE SIMILAR EFFECTS, DIFFERENT RISK FACTORS

- People who began using heroin in the 1960s were predominantly young men from minority groups living in urban areas (82.8 percent; mean age at first opioid use, 16.5 years) whose first opioid of abuse was heroin (80 percent).
- The epidemic of prescription opioid abuse has been associated with a shifting of the demographic of opioid users toward a population that is somewhat older (mean age at first opioid use, 22.9 years), less minority, more rural/suburban, with few gender differences among those who were introduced to opioids through prescription drugs.
- Whites and nonwhites were equally represented in those initiating use prior to the 1980s, but nearly 90 percent of respondents who began use in the last decade were white (Cicero et al., 2014).



RACIAL DISTRIBUTION OF RESPONDENTS EXPRESSED AS PERCENTAGE OF THE TOTAL SAMPLE OF HEROIN USERS



PRESCRIPTION OPIOIDS AND HEROIN HAVE SIMILAR EFFECTS, DIFFERENT RISK FACTORS

- Because heroin is often injected, the upsurge in use also has implications for HIV, hepatitis C (HCV), and other injection-related illnesses.
- Recent studies suggest that having used opioid pain relievers before transitioning to heroin injection is a common trajectory for young injection drug users with HCV infection (Klevens et al., 2012).
- A study of new HCV infections in Massachusetts found that 95 percent of interview respondents used prescription opioids before initiating heroin (Church et al., 2010).



A SUBSET OF PEOPLE WHO ABUSE PRESCRIPTION OPIOIDS MAY PROGRESS TO HEROIN USE

- A recent study of heroin users in Chicago metropolitan area identified three main paths to heroin addiction:
 - Prescription opioid abuse to heroin use
 - Cocaine use to heroin use (to “come down”)
 - Polydrug use (i.e., use of multiple substances to heroin use)
- Polydrug use to heroin was the most common path in this study (Kane-Willis, et al., n.d.)



A SUBSET OF PEOPLE WHO ABUSE PRESCRIPTION OPIOIDS MAY PROGRESS TO HEROIN USE

- The estimated 4 percent subset of people who transition from prescription opioid abuse to heroin use (Muhuri et al., 2013) may be predisposed to polydrug use, and the transition may represent a natural progression for them.
- Examination of new HCV cases in young adults living in rural areas identified a population who reported transition from non-injection drug use to injecting opioid pain relievers before switching to injecting heroin or methamphetamine (Stanley et al., 2012).

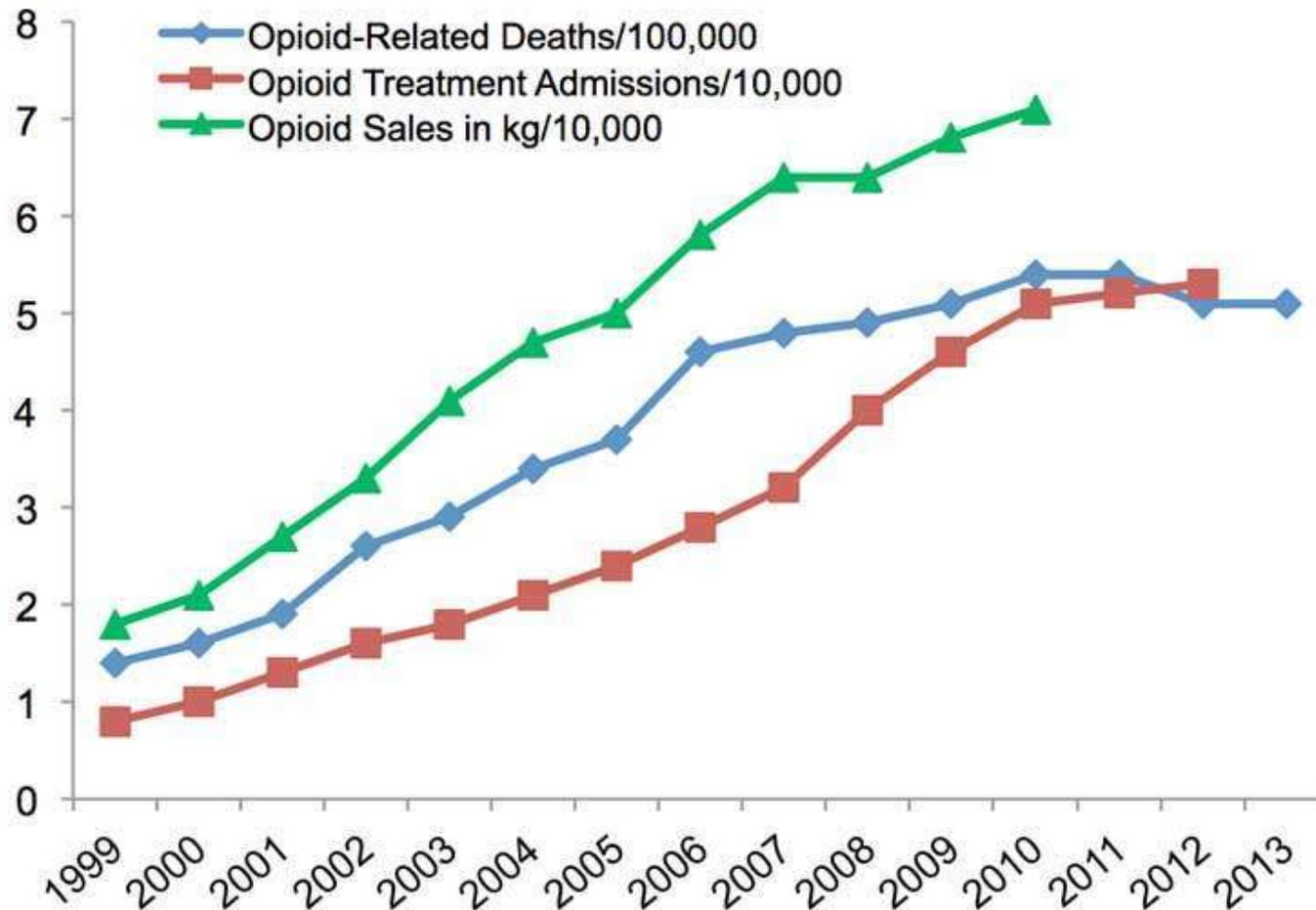


A SUBSET OF PEOPLE WHO ABUSE PRESCRIPTION OPIOIDS MAY PROGRESS TO HEROIN USE

- A study looking at a larger sample found that prescription opioid abuse preceded heroin use by an average of 2 years (Suryaprasad et al., 2014).
- Frequent prescription opioid users and those diagnosed with dependence or abuse of prescription opioids are more likely to switch to heroin; dependence on or abuse of prescription opioids has been associated with a 40-fold increased risk of dependence on or abuse of heroin (Jones et al., 2015).



OPIOID SALES, OPIOID TREATMENT ADMISSIONS, AND OPIOID-RELATED DEATHS



INCREASED DRUG AVAILABILITY IS ASSOCIATED WITH INCREASED USE AND OVERDOSE

- From 1991 to 2011, there was a near tripling of opioid prescriptions dispensed by U.S. pharmacies: from 76 million to 219 million prescriptions (IMS Health, 2014a; IMS Health 2014b).
- In parallel with this increase, there was also a near tripling of opioid-related deaths over the same period.



INCREASED DRUG AVAILABILITY IS ASSOCIATED WITH INCREASED USE AND OVERDOSE

- Mexican heroin production increased from an estimated 8 metric tons in 2005 to 50 metric tons in 2009 – more than a six-fold increase in just 4 years.
- Domination of the U.S. market by Mexican and Colombian heroin sources, along with technology transfer between these suppliers, has increased the availability of easily injectable, white powder heroin (National Drug Intelligence Center, 2011).
- In a recent survey of patients receiving treatment for opioid abuse, accessibility was one of the main factors identified in the decision to start using heroin (Cicero et al., 2014).



HEROIN USE IS DRIVEN BY ITS LOW COST AND HIGH AVAILABILITY

- One main factor that contributes to the popularity of a drug is availability.
- One key to prevent is reducing exposure
- While efforts to reduce the availability of prescription opioid analgesics have begin to show success, the supply of heroin has been increasing.
- Prescription opioids and heroin have similar chemical properties and physiological impacts; when administered by the same method (i.e., ingested or injected), there is no real difference for the user.



HEROIN USE IS DRIVEN BY ITS LOW COST AND HIGH AVAILABILITY

- It is not clear whether the increased availability of heroin is causing the upsurge in use or if the increased accessibility of heroin has been caused by increased demand.
- A number of studies have suggested that people transitioning from abuse of prescription opioids to heroin cite that heroin is cheaper, more available, and provides a better high.
- Notably, the street price of heroin has been much lower in recent years than in past decades (Unick et al., 2014).



HEROIN USE IS DRIVEN BY ITS LOW COST AND HIGH AVAILABILITY

- In addition to these market forces, some have reported that the transition from opioid pills to heroin was eased by sniffing or smoking heroin before transitioning to injection (Mars et al., 2014).
- In a recent survey of people in treatment for opioid addiction, almost all – 94 percent – said they choose to use heroin because prescription opioids were “far more expensive and harder to obtain” (Cicero et al., 2014).



EMPHASIS IS NEEDED ON BOTH PREVENTION AND TREATMENT

- With the increasing use of opioids, there has been a concomitant increase in the number of treatment admissions attributable to prescription opioids and heroin.
- The number of persons receive substance use treatment for prescription opioids rose from 360,000 in 2002, representing 10.3 of the total treatment population, to 772,000 (18.6 percent) in 2014 (CBHSQ, 2015b).
- The number of persons receiving treatment of heroin increased from 277,000 in 2002 to 618,000 in 2014 (CBHSQ, 2015b).

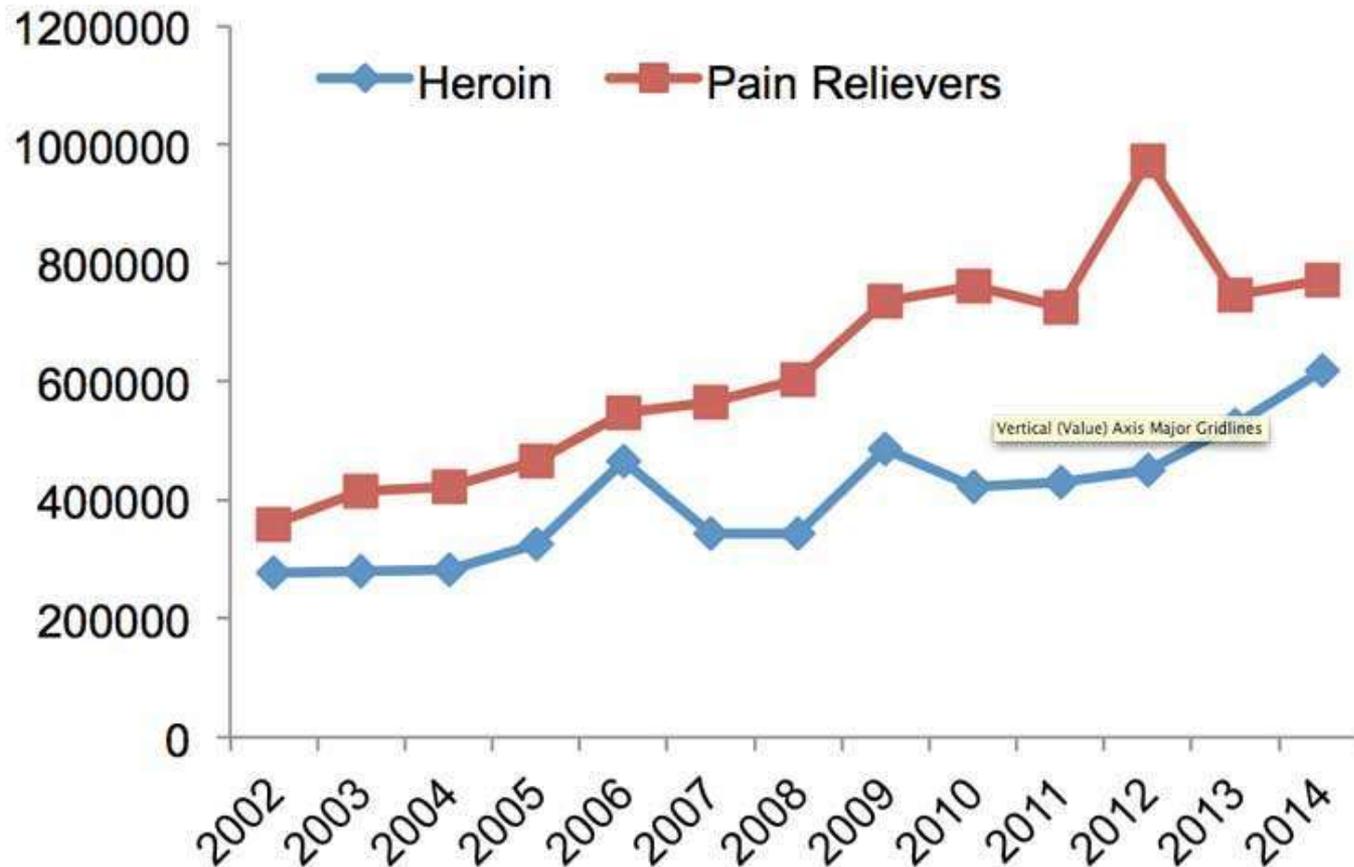


EMPHASIS IS NEEDED ON BOTH PREVENTION AND TREATMENT

- In addition, the number of heroin users in the United States jumped from about 404,000 in 2002 to 914,000 in 2014, and the number of those with heroin “dependence or abuse” more than doubled from 2002 to 2014, increasing from about 214,000 to 586,000 (CBHSQ, 2015a).



NUMBER OF PERSONS 12 YEARS OR OLDER WHO RECEIVED LAST OR CURRENT SUBSTANCE USE TREATMENT FOR HEROIN OR PAIN RELIEVERS



EMPHASIS IS NEEDED ON BOTH PREVENTION AND TREATMENT

- In addition to efforts to prevent initiation of abuse of prescription opioids and use of heroin, there is a significant need to identify and treat people who have already developed an addiction to these substances.
- The prescription drug monitoring programs are one means by which states are identifying individuals who are doctor shopping.
- In addition, there are ongoing efforts to encourage health care practitioners to screen patients for potential drug abuse problems.
- However, identification is only the first step; it is critical to provide evidence-based treatments for these individuals.



EMPHASIS IS NEEDED ON BOTH PREVENTION AND TREATMENT

- Treatment should include access to the medication-assisted treatment (MAT) options of methadone, buprenorphine, or extended-release naltrexone, which are effective for both prescription opioid and heroin addiction.
- Currently far fewer people receive MAT than could potentially benefit from it.
- Nearly all U.S. states have higher rates of opioid abuse and dependence than their buprenorphine treatment capacity (Jones et al., 2015), and fewer than 1 million of the 2.5 million Americans who abused or were dependent on opioids in 2012 received MAT (Volkow ND et al., 2014).
- Removing barriers to MAT access and utilization is a top priority for the U.S. Department of Health and Human Services and is a key objective of the Secretary's Opioid Initiative to combat opioid drug-related dependence and overdose.



PUBMED.GOV

- PubMed.gov published a study conducted in 2011 entitled “Societal costs of prescription opioid abuse, dependence, and misuse in the United States”.
- Results showed that the TOTAL US societal costs of prescription opioid abuse were estimated at \$55.7 billion in 2007.
- Workplace costs accounted for \$25.6 billion (46%), health care costs accounted for \$25.0 billion (45%), and criminal justice costs accounted for \$5.1 billion (9%).



PUBMED.GOV

- Workplace costs were driven by lost earnings from premature death (\$11.2 billion) and reduced compensation/lost employment (\$7.9 billion).
- Health care costs consisted primarily of excess medical and prescription costs (\$23.7 billion).
- Criminal justice costs were largely comprised of correctional facility (\$2.3 billion) and police costs (\$1.5 billion).
- Conclusion: The cost of prescription opioid abuse represent a substantial and growing economic burden for the society. The increasing prevalence of abuse suggests an even greater societal burden in the future.



PRESCRIPTION STATS FOR ALABAMA FOR 2014

- Narcotic Analgesics:
 - 5,551,260 – prescriptions written
 - 360,640,001 – total dosage units from prescriptions written
 - 102,963,181 – total days of supply from above prescriptions

Source: zeroaddiction.org



ZEROADDICTION.ORG INFO

- It is estimated that more than 4 billion prescriptions are written annually in the U.S.
- Prescription drug abuse is the Nation's fastest growing drug problem and has been classified as an epidemic.
- According to the CDC, approximately 100 Americans die every day due, to overdoses of prescription opioids.
- 43% (or 16,600) of the 38,300 unintentional drug overdose deaths occurred in the United States, were attributed to prescription opioids.



ZEROADDICTION.ORG INFO CONTINUED

- Opioid pain relievers were involved in more overdose deaths than cocaine and heroin combined.
- America has 4% of the world's population , but uses 40% of the pharmaceuticals produced.
- Drugs of concern:
 - Oxycodon/OxyContin® (Schedule II)
 - Hydromorphone/Dilaudid (Schedule II)
 - Methadone (Schedule II)
 - Adderall® (Schedule II)
 - Carisoprodol/Soma® (Schedule IV)
 - Oxymorphone/Opana® (Schedule II)
 - Xanax® / Alprazolam (Schedule IV)
 - Fentanyl (Schedule II)
 - Cough Syrup (Schedule IV)



WHAT TO DO IF I SUSPECT SOMEONE IS ABUSE DRUGS

- Educate yourself on the signs and symptoms of drug use and abuse.
 - Analgesia (feeling no pain)
 - Sedation
 - Euphoria (feeling high)
 - Respiratory depression (shallow or slow breathing)
 - Small pupils
 - Nausea, vomiting
 - Itching or flushed skin
 - Constipation
 - Slurred speech
 - Confusion or poor judgment



WHAT TO DO IF I SUSPECT SOMEONE IS ABUSE DRUGS

- Discuss your concerns with your loved one.
- Know the resources that are available:
 - 12 step meetings (AA, NA, CA, CR, Al-Anon)
 - AltaPointe (CarePointe 251-450-2211)
 - Intensive Outpatient Treatment
 - Methadone Program (Gateway)



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