Trends in opioid abuse: Prescription opioid abuse and the resurgence of heroin

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Dr. Theodore J. Cicero, PhD
Washington University in St. Louis,
Department of Psychiatry
Email: cicerot@wustl.edu
The Prescription Opioid Epidemic
Two major developments of the late 1990s/early 2000s.
• Joint Commission on Accreditation of Healthcare Organizations.
  • Pain as the fifth vital sign.
  • Recommended increase use of opioids to relieve pain.
■ Release of extended-release oxycodone.
  ■ Initially thought to have little abuse potential.
  ■ Snorting/IV injection became common.
  ■ Became the most widely abused prescription opioid.
The epidemic emerges

Why are prescription opioids so attractive?
- Euphorigenic.
- They are legal, approved by FDA and prescribed by doctors.
- Seen as safer than other drugs.
- Trustworthy and predictable.
  - Dosage clearly specified on tablet/pill.
- No stigma of a “junkie”.
“I mean... a doctor prescribes them to you... can’t be that bad....”

Source: Daniulaityte R, Falck R, Carlson RG. "I'm not afraid of those ones just 'cause they've been prescribed": perceptions of risk among illicit users of pharmaceutical opioids. Int J Drug Policy. 2012 Sep;23(5):374-84
Initial opioid exposure.
“Minutes after doing them my first time I felt like there was not a care in the world to me. Nothing and no one existed except for me and the amazing high I was feeling....”
“It was like god was petting me.”
Unanticipated “benefits” of opioids leading to misuse.
Opioid Abusers

- 75% self-report they used opioids to self-medicate psychiatric related issues.
- 85% self-report the use of opioids to “escape from life”.
- No difference between those who started using from a doctor’s prescription and those who experimented.
How do opioids make you feel?

Source: Cicero TJ, Ellis MS, Kasper ZA. Understanding the demand side of the prescription opioid epidemic: does the initial source of opioids matter? Drug and Alcohol Dependence. Accepted. In Press.
“They made me feel like I could talk to people and not be scared or embarrassed to walk around and just talk and be part of society.”
“Mask inside emotions/traumas, feelings of fear, self-esteem, self-pity, anger and avoiding the growing stress and responsibility of life”
“It made me feel happy and gave me the energy and want to do daily activities such as working that otherwise wouldn’t have been possible due to the debilitating depression at that time in my life.”
Progresses to a tipping point
“Right before I entered my first treatment program, I was not “getting high” any more, I was purely seeking the drug to stay well.

I was tired of being addicted but could not stop using on my own, I would get into the withdraw symptoms and need to use because I would get too sick.

I would beg borrow or steal just to be able to get money to get opioids mainly heroin, or oxycontin. Because detoxing on my own was too hard, and no one knew I used so I had to be able to function everyday.”
Confronting the epidemic
Focus on supply-side efforts
Supply-side efforts

- Prescription Monitoring Programs (PMPs).
- Crackdown on ‘pill mills’.
- Physician education.
- Abuse-deterrent formulations (ADFs).
Impact of Abuse-Deterrent Formulations
Abuse-Deterrent Formulations

- Primary focus of both NIDA and Pharmaceutical companies.
- Goal is to create safer opioids and reduce abuse.
- Chemical reformulations of prescription opioids.
  - Extraction-resistant/crush-resistant
- Lots of regulatory issues with labeling, effectiveness and prescribing outcomes.
Effects of ADFs on Abuse

- **OxyContin (oxycodone)**
  - Modestly successful in reducing abuse by non-oral routes
  - Oral abuse still exists

- **Opana (oxymorphone)**
  - Successful in reducing inhalation
  - Not successful in reducing injection

- **EMBEDA (morphine)**
  - Low market share prevents discernable effects
Overall impact of supply-side efforts: Have they worked?
Yes & No
Unanticipated effects of supply-side efforts: pathways to heroin
Drugs selected to “replace” OxyContin

Impact on Heroin Use

- ADFs not totally at fault
- Collective supply-side efforts resulted in pressure to find alternatives, primarily heroin.
“Became easier to find heroin than good oxys. Also heroin was cheaper.”
“Because of the change in the OxyContin formulation I tried heroin for the first time. I did that in part because you couldn’t smoke or snort the OxyContin pills anymore so I resorted to something you could do that with”
“I heard heroin would get me higher and was cheaper and when the Oxys changed so did my choice of drug.”
Increases in Heroin Use

- Cost and availability.
  - Heroin is cheaper.
  - Heroin is easier to get.
  - Heroin is easier to inject.
  - Heroin is purer than ever.
Heroin + Prescription Opioids

Why has heroin use grown so rapidly?
Practical Factors
“Heroin is cheaper and stronger than prescription drugs, and the supply is typically pretty consistent. It is also much easier to use intravenously than pills and other prescriptions, which often take more complex methods to break down.”
Evidence of Reduced Stigma
“…..EVERY single person I know now that used pills, now uses heroin.....Also EVERY person I know that now uses heroin uses it intravenously. More people than I can count who I never thought would ever even try heroin are now shooting it up.”
“....The 2 dealers and the people around them are middle class white kids, not even kids we were all in the age range of 25-41. It just became easy, and we weren’t really looked at as being addicts because everyone thinks heroin addicts are all homeless, shady looking, dirty junkies.”
“I knew I liked it above all else, and once I had a drug dealer it became almost too easy to get.

I had access to money because I’m an upper middle class family and I also became close to my dealers, driving them around so I could get paid in drugs and just becoming super close, even if it meant sexually, so I could get the drug......”
Qualitative data illustrate a sharp change in the face of heroin addicts
Changing Demographics

[Graph showing changes in the total sample percentage for men and women across different decades from the 1960s to the 2010s. The graph indicates a decline in men and a rise in women over time.]
Changing Demographics

[Graph showing trends in Total Sample percentage for Nonwhite and White across decades of first regular opioid use.]
Changing Demographics

- Over 75% of heroin users in the past few years resided in suburban or rural areas.

- Previous heroin users:
  - Young, minority male living in an urban center.

- New heroin users:
  - Older, white male/female living in a suburban/rural area.
Heroin as a first opioid of abuse
First Opioid of Abuse

Percentage of Opioid Initiators

Year Beginning Regular Abuse

Heroin
First Opioid of Abuse
Most Important Conclusion

- Supply side efforts cannot exist alone.
- Understanding the demand for these drugs is essential to developing effective treatment and prevention strategies.
The End