Evolving Safety of Psychoactive Drugs

Tuesday, May 17, 2022
"A MAN'S GOTTA HAVE A CODE"
Registrants $n=196$

<table>
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<td>Academic</td>
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<td>Industry/Pharma</td>
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<td>Other</td>
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Prescribing of Stimulants, US, 2010 - 2021

Rx Dispensed (Millions)

All Stimulants
Amphetamine
Methylphenidate
Modafinil

Source: IQVIA™ US-Based Longitudinal Prescription Data
NMURx Program, Non-Medical Use of Rx Stimulants, 2019 - 2021

Number Adults Who NMU

- Amphetamines
- Atomoxetine
- Modafinil
- Methylphenidate

COVID
Poison Center Program, Rx Stimulants, 2012 - 2021

Cases per 100,000 population

- Amphetamine
- Methylphenidate

COVID
Drug Diversion Program, Rx Stimulants, 2012 - 2021
Mortality related to medical stimulants is rising rapidly alongside illicit substances like cocaine and methamphetamine.
Trends in Annual Opioid Prescribing Rates, 2010 - 2021

Rx Dispensed (Millions)

Source: IQVIA™ US-Based Longitudinal Prescription Data
Opioid Rx During Pandemic

- IQVIA’s LRx database
- Before Jan 1, 2018
- After March 18 – Sept 20, 2020
- Results
  - Decrease in Rx in 2020-Q2
  - Compensated by increased quantity/Rx

Total Opioid Rx
Established v. Naïve Rx Patients

• Number of established patients receiving an opioid prescription decreased slightly compared to 2019

• Number of “opioid-naïve” patients receiving an opioid prescription decreased 50% compared to 2019
NMURx Program, Non-Medical Use of Opioids, 2019 - 2021

- Total Rx Opioids
- Heroin
- Illicit Fentanyl

Adults Who NMU

% of Adult Pop NMU

- Buprenorphine
- Rx fentanyl
- Hydromorphone
- Hydrocodone
- Hydrocodone
- Methadone
- Morphine
- Oxycodone
- Tapentadol
- Tramadol
- Heroin
- Illicit fentanyl

COVID
Poison Center Program, Intentional Abuse, 2012 - 2021

Includes oxycodone, hydrocodone, hydromorphone, morphine, tramadol

Per 100,000 population

COVID

Includes oxycodone, hydrocodone, hydromorphone, morphine, tramadol

Oxycodone
Fentanyl
Hydrocodone
Hydromorphone
Morphine
Methadone
Buprenorphine
Tramadol
Tapentadol

COVID

Oxycodone
Fentanyl
Hydrocodone
Hydromorphone
Morphine
Methadone
Buprenorphine
Tramadol
Tapentadol
Counterfeit Forms of Fentanyl are Likely Cause of Increasing “Oxycodone” Cases in Poison Center Program Data

Intentional Abuse Exposures - Oxycodone

Intentional Abuse Exposures - Fentanyl
Drug Diversion Program – Increase in Oxycodone Cases

Invest. Opened Per 100,000 population

![Graph showing increase in oxycodone cases](image)

- Other oxycodone
- Other known IR oxycodone

COVID period marked with asterisk (*)
Treatment Center Programs Combined, 2012 - 2021

Endorse Per 100,000 population

Oxycodone, hydrocodone, hydromorphone, morphine, tramadol

COVID
Treatment Center Programs Combined, Proportion, 2012 - 2021

Proportion of Total Rx
Treatment Center Cases
Treatment Center Programs Combined, Fentanyl, 2015 - 2021

Proportion of Comprised by Fentanyl

Proportion of Total Cases

2015 0% 5% 10% 15% 20% 25% 30% 35%

Illicit
NOS
Rx

COVID
Why Aren’t We Celebrating?

Endorse. Per 100,000 population

Radars Treatment Centers

War on Rx Opioids Won!

Los Angeles Times

Breaking News
210 East and West Arcadia
Drug Overdose Deaths in United States

Figure 2. 12 Month-ending Provisional Number of Drug Overdose Deaths by Drug or Drug Class: United States

- Opioids
  - Synthetic Opioids excl methadone
- Psychostimulants
  - Cocaine
  - Natural & Semisynth Heroin
Interaction of Licit and Illicit Pharmaceuticals
Summary

- Opioids are a continuing scourge
  - More challenging than ever due to Fentanyl
- COVID
- Prescription opioids are a “success”
  - Meaning? Supply or demand issue?
  - Still concerning events of inappropriate denial of opioids
- Relation between licit and illicit drugs of abuse
Evolving Safety of Psychoactive Drugs

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President, Canadian Consumer Product and Pharmaceutical Safety Inc.

Heterogeneous Patterns of Stimulant Initiation: A Study of Typologies

Joshua C. Black, PhD

Senior Research Scientist, Rocky Mountain Poison & Drug Safety, Denver Health and Hospital Authority
Does Over-the-Counter Mean Under the Radar?

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Jennifer Jewell, DrPH
Assistant Research Scientist, Rocky Mountain Poison & Drug Safety, Denver Health and Hospital Authority
Am I Dreaming? The Misuse and Abuse of Psychedelics

A Mosaic Perspective of Psychedelics Landscape

Marta Sokolowska, PhD

Associate Director for Controlled Substances, Office of the Center Director, Center for Drug Evaluation & Research, U.S. Food and Drug Administration

Psychedelics in the Real World: Using Real World Evidence to Prepare for Approval

Janetta L. Iwanicki, MD

Chief Scientific Officer, Research and Consulting, Rocky Mountain Poison & Drug Safety, Denver Health and Hospital Authority
Fake Drugs, Real Risk

Answered and Unanswered Questions about Counterfeit Drugs: Targeted Literature Review

Joshua C. Black, PhD

Counterfeit Pills In North America: A Conversation Centered on Science and Action

Moderator Nabarun Dasgupta, MPH, PhD

Innovation Fellow and Senior Scientist, Gillings School of Global Public Health, University of North Carolina
2022 Program

Panelists

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