Diverging Perspectives of Prescription Opioid Abuse
May 6, 2016

Welcome and RADARS® System 2015 Data Updates

Richard C. Dart, MD, PhD
Executive Director, RADARS® System
Denver Health and Hospital Authority
95 Registrants
- Government 30
- Academic 18
- Industry/Pharma 30
- Other 17

International Pre-Symposium

Prescription Drug Misuse – A Global Crisis?
Judging by the size and frequency of the droppings, I’d say we’ve found the campaign trail.
Mosaic Surveillance of Prescription Drug Abuse 2015

**Acute Health Events**
- 50 Poison centers
- 48 states
- 565,284 opioid cases
- 609,745 opioid mentions

**Drug Transactions**
- Criminal Justice
- 635 agencies; 50 states
- >199,000 cases
- 164,451 opioid mentions

**Entering Treatment**
- Opioid Tx Program
- 114 programs; 37 states
- 76,770 cases
- 217,448 Rx opioid mentions

**New Initiates**
- College Survey
- 50 states
- 38,865 respondents
- 19,284 Rx opioid mentions

**Illicit Market Price**
- StreetRx.com
- Users/Buyers, 50 states
- 56,371 price entries for an opioid

**Entering Treatment**
- SKIP
- 288 practices, 49 states
- 18,377 cases
- 96,898 Rx opioid mentions

**Web Monitoring**
- >150 million sites monitored
- >159,000 posts coded for analysis
Principal Investigators
- Theodore J. Cicero, PhD
  Washington University in St. Louis
- Richard C. Dart, MD, PhD
  Denver Health and Hospital Authority
- Steven P. Kurtz, PhD
  Nova Southeastern University
- Mark W. Parrino, MPA
  American Association for the Treatment of Opioid Dependence

Substance Abuse Experts
- Herbert D. Kleber, MD
  Columbia University
- Sidney Schnoll, MD, PhD
  Pinney Associates
- George E. Woody, MD
  University of Pennsylvania

Law Enforcement
- John J. Burke
  Pharmaceutical Diversion Education, Inc.

Epidemiology/Biostatistics
- Nabarun Dasgupta, MPH, PhD
  Chief Product Officer – Epidemico, Inc.
2015 – 2016 in the Opioid World

• General trends in prescription opioid continue downward
• Increasing deaths from prescription opioids -ish
• Heroin continues to increase
• FDA Advisory Committees
  – Abuse deterrent formulations
  – ER/LA REMS
• Fentanyl bursts on the US scene
General trends in prescription opioid abuse and death continue downward

US Prescription Drug Abuse on the Rise

Yahoo News
November 24, 2015

Commuters in front of a neighborhood pharmacy in Brooklyn, New York City. (Yahoo News/Siernond Chan)
General trends in prescription opioid abuse and death continue downward

Trends in Opioid Analgesic Abuse and Mortality in the United States.
RADARS Poison Center Program
All Opioids, Intentional Abuse

Per 100,000 population
National Poison Data System (NPDS) Exposures (2007-2014)

- Children <12
- Age 12 or older

Mentions

<table>
<thead>
<tr>
<th>Year</th>
<th>Children &lt;12</th>
<th>Age 12 or older</th>
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<td>600,000</td>
</tr>
<tr>
<td>2014</td>
<td>900,000</td>
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</tbody>
</table>
Strong Correlation of Prescription Opioid Abuse: Poison Centers and Drug Abuse Warning Network (DAWN)

All Opioids

R=0.95

RADARS Drug Diversion Program
All Opioids, Intentional Abuse

Per 100,000 population
RADARS Treatment Programs
All Opioids, Intentional Abuse

Opioid Treatment Program

Survey of Key Informant Patients

Per 100,000 population
Treatment Episode Data Set (TEDS) shows decrease abuse beginning in 2011

Individuals Entering Treatment for Prescription opioids
2005 to 2015

R=0.94
RADARS College Survey
All Opioids, Nonmedical Use

Per 100,000 population

[Graph showing the trend of All Opioids, Nonmedical Use from 2008 to 2015, with a focus on the years 2013 and 2014.]
Increasing deaths from prescription opioids - ish

Drug overdose deaths involving opioids, by type of opioid - US, 2000–2014

Increasing deaths from prescription opioids - ish

Drug overdose deaths involving opioids, by type of opioid - US, 2000–2014

Deaths from Opioid Analgesics are Decreasing

Natural & Semisynthetic Opioids, 2003 to 2015

**T40.2 Natural and semisynthetic opioids: oxycodone, morphine, hydromorphone, oxymorphone, others**

**RADARS System opioids: oxycodone, hydrocodone, morphine, hydromorphone, and oxymorphone. Deaths include cases followed to a known medical outcome whose death was related to the reported**
Florida Interventions Detected by RADARS Poison Center Program, 2006-2013

- Border states (GA AL MS)
- Florida

CS-II Dispensing Limits and OxyContin Tamper Resistant

- CS-II Dispensing Limits and OxyContin Tamper Resistant
- Strike Force
- House Bill 7095 Takes effect
Heroin Abuse Continues to Increase

Steph Curry becomes face of new brand: Philadelphia heroin

Published April 30, 2016 · FoxNews.com
Heroin Mortality: Correlation of Poison Centers and National Vital Statistics System is Strong

Heroin Deaths, 2005 to 2015

NVSS Deaths per 100,000 population

NPDS Deaths Per 1,000,000 population

* T40.1 (heroin) was the multiple cause-of-death code that was used.
Fentanyl bursts on the US scene

**Heroin Epidemic Is Yielding to a Deadlier Cousin: Fentanyl**

By KATHARINE Q. SEELYE    MARCH 25, 2016
Fentanyl bursts on the US scene

Number of States Spontaneously Reporting Fentanyl in Heroin or Tablet Seizures, Drug Diversion Program 2014-2016
2016 Program

• Prescription Opioid and Heroin Abuse in the United States
  – Christopher M. Jones, PharmD, MPH
  – Director, Division of Science Policy
  – Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services

• Setting the Stage: Are Abuse Deterrent Formulations Ready for Prime Time?
  – Lewis S. Nelson, MD
  – Professor, Ronald O. Perelman Department of Emergency Medicine, New York University School of Medicine
  – Director, Fellowship in Medical Toxicology, New York City Poison Control Center
2016 Program

• NSDUH Trends in Nonmedical Use of Prescription Opioids
  – Scott P. Novak, PhD
  – Senior Developmental Epidemiologist, RTI International

• Understanding Drug Overdose Mortality using the National Vital Statistics Program
  – Margaret Warner, PhD
  – Health Scientist, National Center for Health Statistics (CDC)

• The Political Factors Affecting the Abuse Deterrent Formulations
  – Dan Cohen, MALS
  – Chair, Abuse Deterrent Coalition
2016 Program

• Impact of Abuse Deterrent Opioids on:

• Drug Diversion Investigators
  – John J. Burke
  – President/Commander, Pharmaceutical Diversion Education Inc.

• Street Prices
  – Nabarun Dasgupta, MPH, PhD
  – Chief Science Officer, Epidemico

• Patients Entering Substance Abuse Treatment
  – Theodore J. Cicero, PhD
  – Professor of Psychiatry, Anatomy and Neurobiology
  – Vice Chairman for Research, Department of Psychiatry, Washington University in St. Louis
2016 Program

• Abuse Deterrent Opioids: Lessons for the “Downward Spiral”
  – Richard C. Dart, MD, PhD
  – Executive Director, RADARS® System – Denver Health and Hospital Authority

• Panel Discussion
End