



## Community Announcements

### Upcoming Events

**August Webinar:** Development of the Arkansas (AR) Poison Control Center (PCC) Mission Ready Package to Support Continuity of Operations and Surge Utilizing the Emergency Management Assistance Compact (EMAC)

**Date:** Thursday August 11, 2016, 3:00–4:00PM EST

**Presenters:** Dr. Howell Foster, Director, AR PCC, University of AR for Medical Sciences; Aaron Adams, Associate Branch Chief, Trauma, Preparedness, and EMS Branch, Arkansas Department of Health (ADH); Carol Walton, Operations Branch Manager, Response and Recovery Division, AR Department of Emergency Management (ADEM)

**Details:** This presentation will describe how Arkansas used the EMAC to address surge capacity needs during emergency response. We will describe:

- How existing AR PCC, ADH, and ADEM partnerships used the EMAC Mission Ready Package (MRP) system to address surge capacity
- The MRP development process as well as the activation procedures and integration of the AR PCC into the state's response process

### Past Events (at Time of Newsletter Release)

**June Webinar:** Adulterated medications sold on the street as prescriptions: The Fake Xanax Bars in San Francisco

**Date:** Thursday June 16, 2016 @ 1:00–2:00PM EST

**Presenters:** Ann Arens, MD and Kathy Vo, MD, Medical Toxicology Fellows, California Poison Control System, San Francisco Division; Dr. van Wijk, Clinical Chemistry Fellow at the University of California, San Francisco; Dr. Coffin, Director of Substance Use Research at the San Francisco Department of Public Health (SFDPH)

**Details:** Drs. Arens, Vo, van Wijk, and Coffin presented a cluster of opioid-related poisoning cases and deaths in San Francisco following ingestion of counterfeit pills designed to look like prescription medication. They described the clinical cases and detailed the coordinated public health response, which included the local PCC, a toxicology lab, a public health officer, the local medical examiner, and affected hospitals.

**Roundtable:** CSTE 2016—Poison Center & Public Health Collaborations

**Date:** Tuesday, June 21, 2016: 7:30–8:15AM

**Location:** ECC, Summit Halls 9 and 10

**Presenter:** Jay Schauben, PharmD, DABAT, FAACT, PC PH CoP Steering Committee Chair

**Details:** Dr. Schauben provided an overview of activities and accomplishments of the PC PH CoP and discussed ways to overcome key barriers to PC and public health collaboration.

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Centers for Disease Control and Prevention  
National Center for Environmental Health

*The findings and conclusions in this newsletter are those of the author(s) and do not necessarily represent the official position of the CDC/ATSDR.*



Find Dr. Frieden's full presentation by clicking the following link:  
<https://vimeo.com/162843894>.

For more information about the summit, including presentation slides, video, and audio recordings, the visit the [National RX Drug Abuse & Heroin website](#).

For additional information regarding the opioid epidemic in the United States including the federal response, visit <http://www.hhs.gov/opioids/about-the-epidemic/>.

### **Opioid Abuse**

The following are examples of **prescription opioid abuse**:

- Taking someone else's prescription opioid.
- Taking a prescription opioid in a way other than prescribed.
- Taking more than prescribed.
- Combining a prescription opioid with alcohol or other drugs.
- Crushing pills into powder to snort or inject.
- Taking opioid prescription medications to get high.

Regular **abuse** of opioids, may change the functioning of the brain. Repeated use may result in the following:

- **Tolerance**: more of the drug is needed to achieve the same "high."
- **Dependence**: the need to continue using the drug to avoid withdrawal symptoms.
- **Opioid use disorder**: also known as addiction, a devastating brain disease where, without proper treatment, people can't stop using drugs even when they really want to and even after it causes terrible consequences to their lives and health.

References: [NIDA for Teens Fact Sheet: Opioids & Pain Relievers](#) and [NIDA for Teens Fact Sheet: Heroin](#)

### **Opioid Overdose**

According to the [World Health Organization \(WHO\)'s Information Sheet on Opioid Overdoses](#), opioids in high doses can cause respiratory depression and death because of their effect on the part of the brain which regulates breathing.

An opioid overdose can be identified by a combination of three signs and symptoms—pinpoint pupils, unconsciousness, and respiratory depression—referred to as the "opioid overdose triad." Combining opioids with alcohol and sedative medications increases the risk of respiratory depression and death.

### **Treatment for Acute Opioid Poisoning**

CDC describes **naloxone** as a non-addictive, potentially life-saving drug that can *reverse*<sup>1</sup> the effects of an opioid overdose when administered *in time*<sup>2</sup>. Expanding training on how to administer naloxone can help emergency medical service staff and bystanders reverse an opioid overdose and save more lives.

<sup>1</sup>Naloxone is an opioid antagonist—meaning that it binds to opioid receptors and can reverse or block the effects of other opioids (<http://www.cdc.gov/media/releases/2015/p0424-naloxone.html>).

<sup>2</sup>According to NIDA: by the time medical service staff reach a person having an overdose, it is often too late. Several experimental overdose education and naloxone distribution (OEND) programs have issued emergency naloxone kits directly to opioid users, their friends or loved ones, and other potential bystanders, along with brief training in how to use these kits. Such programs have been shown to be an effective, as well as cost-effective, way of saving lives. (<https://www.drugabuse.gov/about-nida/noras-blog/2014/02/naloxone-potential-lifesaver>).

## Featured Articles

### OPIOID ABUSE

**Summary of:** Dart, R. C., Surratt, H.L., Cicero, T.J., Parrino, M.W., Severtson, S.G., Bucher-Bartelson, B. and J.L. Green (2015). Trends in Opioid Analgesic Abuse and Mortality in the United States. *New England Journal of Medicine*, 372 (3): 241–248.

In this article, Dart et. al (2015), used the Researched Abuse, Diversion, and Addiction Related Surveillance (RADARS) System to describe trends in the diversion and abuse of prescription opioids between 2002 and 2013.

#### Surveillance Programs in Radars:

- Drug Diversion
- Poison Center (PC)
- The Opioid Treatment Program and Survey of Key Informants' Patients (SKIP) Program
- College Survey

#### Study Medications:

- Oxycodone
- Hydrocodone
- Hydromorphone
- Fentanyl
- Morphine
- Tramadol

For more information on RADARS visit: <http://www.radars.org/>

For more information on prescription opioids visit the American Association of Poison Control Centers (AAPCC) [opioid \(narcotic\) pain medications page](#)





## Key Trends Observed:

1. In general, RADARS System programs reported large increases in rates of opioid diversion<sup>3</sup> and abuse from 2002–2010, but then rates flattened or decreased from 2011–2013.
2. Rate of opioid-related deaths followed a similar pattern to the rates of opioid diversion and abuse.
3. Reported heroin use generally increased from 2002 to 2013.
4. National Poison Data System (NPDS) shows rate of heroin-related deaths started increasing in 2006 and appeared to accelerate late in 2010.
5. Rate of deaths associated with heroin increased while rates of prescription opioid related deaths decreased. Authors suggest a possible relationship between the trends.

## Authors' Conclusions:

The authors believe that decreases in prescriptions, diversion, and abuse from 2011–2013 are potentially due to:

- Decrease in supply (decrease in the number of prescriptions written);
- Decrease in demand (number of patients requesting prescriptions has decreased); or
- Programs implemented by local, state, and federal governments to improve opioid prescribing, reduce doctor shopping, limit questionable practices by pain clinics, and decrease the use of opioid pain relievers in the U.S. are working.

Access full article at: <http://www.nejm.org/doi/full/10.1056/NEJMs1406143>

<sup>3</sup>When prescription medicines are obtained or used illegally, it is called drug diversion. For more information on drug diversion please visit: <http://www.cdc.gov/injectionsafety/drugdiversion/>



## For more information:

E-mail: [RLyons@cdc.gov](mailto:RLyons@cdc.gov)

Web: <http://www.cdc.gov/nceh/hsb/chemicals/poisoncenter.htm>

PC PH CoP Partners:  
[American Association of Poison Control](#)  
[Council of State & Territorial Epidemiologists](#)

# OPIOID OVERDOSE

**Summary of:** Rudd, R.A., Aleshire, N., Zibbell, J.E., and M.R. Gladden (2016). Increases in Drug and Opioid Overdose Deaths—United States, 2000–2014. *MMWR*. (January 1, 2016).

In this study, Rudd et. al (2016), analyzed recent multiple cause-of-death mortality data to examine current trends and characteristics of drug overdose deaths. The authors used multiple cause-of death mortality files from the National Vital Statistics System (NVSS) to identify drug overdose deaths from 2000–2014. Rudd et. al identified increasing trends in opioid overdose deaths from 2013 to 2014.

## Trends in data, 2013 to 2014:

- Although deaths related to natural and semisynthetic opioid pain relievers declined in 2012 compared with 2011 and held steady in 2013, there was a 9% increase in 2014.
- The overall number and rate of drug overdose deaths increased significantly from 2013 to 2014, with an additional 3,073 deaths in 2014.
- In 2014, there were approximately one and a half times more drug overdose deaths in the U.S. than deaths from motor vehicle crashes.
- The largest increase in the rate of drug overdose deaths involved synthetic opioids other than methadone (e.g., fentanyl and tramadol), which nearly doubled from 1.0 per 100,000 to 1.8 per 100,000.
- The sharp increase in deaths involving synthetic opioids other than methadone in 2014 coincided with law enforcement reports of increased availability of illicitly manufactured fentanyl.

## Key findings from the NVSS—2000 to 2014:

- Nearly half a million persons in the U.S. died from drug overdose and the most common drugs associated with overdose death are opioids
- The U.S. opioid overdose epidemic includes two distinct but interrelated trends:
  - » A 15-year increase in overdose deaths involving prescription opioid pain relievers.
  - » A recent surge in illicit opioid overdose deaths, driven largely by heroin.

## Challenges and Limitations in Opioid Surveillance

- Illicitly manufactured fentanyl cannot be distinguished from prescription fentanyl in death certificate data.
- Toxicological laboratory tests might be performed as part of an autopsy, but the substances tested for and circumstances under which the tests are performed vary by jurisdiction.
- Increase in the reporting of specific drugs in 2014 might have contributed to some of the observed increases in drug overdose death rates involving different types of opioids from 2013 to 2014.
- Some heroin deaths might be misclassified as morphine because morphine and heroin are metabolized similarly, which might result in an underreporting of heroin overdose deaths.

Access full article at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm>