

Drug Poisoning / Prescription Drug Overdose

Any drug has the potential to be misused or abused and may be even more dangerous when used in combination with other drugs or alcohol. The most common drugs involved in prescription drug overdose deaths include Hydrocodone (e.g., Vicodin), Oxycodone (e.g., OxyContin), Oxymorphone (e.g., Opana) and Methadone (especially when prescribed for pain). Changes in how providers prescribe these drugs created and continue to fuel the epidemic. The amount of opioids prescribed and sold in the U.S. quadrupled from 1999 through 2011. Taking too many prescription painkillers may cause a person to stop breathing, leading to death.¹ In 2014, there were about one and half times more drug overdose deaths than deaths due to motor vehicle collisions.²

Heroin overdose death rates have been climbing sharply since 2010. Evidence to date suggests that widespread prescription opioid exposure and increasing rates of opioid addiction have played a role in the growth of heroin use. Heroin is an opioid and acts on the same receptors in the brain as opioid pain relievers. Approximately three out of four new heroin users report having abused prescription opioids prior to using heroin.³

Risk factors for painkiller abuse and overdose include:

- Obtaining overlapping prescriptions from multiple providers and pharmacies.^{4,5,6,7}
- Taking high daily dosages of prescription painkillers.^{5,8,9,10}
- Having mental illness or a history of alcohol or other substance abuse.¹¹
- Living in rural areas and having low income.
- Inappropriate provider prescribing practices and patient use are substantially higher among Medicaid patients than among privately insured patients.¹²
- In one study based on 2010 data, 40% of Medicaid enrollees with painkiller prescriptions had at least one indicator of potentially inappropriate use or prescribing, including overlapping painkiller prescriptions, overlapping painkiller and benzodiazepine prescriptions and long-acting or extended release prescription painkillers for acute pain and high daily doses.¹²

How does drug poisoning affect the United States?

Fatal data

- In 2014, more people died from drug overdoses than during any previous year on record.¹³
- In the U.S., 44 people die each day from overdose of prescription painkillers.¹³
- From 2010-2014, unintentional poisoning was the number one leading cause of injury death in the U.S. for adults, aged 25 to 64 and the third leading cause of youth and young adults aged 15 to 24.¹⁴
- Deaths from drug overdoses have increased by 137% since 2000, killing more than 47,055 people in 2014. This is a statistically significant increase in drug overdose deaths from the previous year.¹⁵
- In 2014, of the 47,055 drug overdose deaths in the U.S., 61% (28,647) were related to some type of opioid, including heroin. Opioids, primarily prescription pain relievers and heroin, are the main drugs associated with overdose deaths.¹⁵
- Men are more likely to die from drug overdose. Both males and females observed statistically significant increases in drug overdose death rates from 2013 to 2014.¹⁵

Non-fatal data

- In 2011, there were 2.5 million emergency department (ED) visits attributed to drug misuse or abuse, and of those visits, more than 1.4 million involved pharmaceuticals.¹⁶
- The number of ED visits involving misuse or abuse of pharmaceuticals has steadily increased from 2004 (626,470 visits) through 2011 (1,428,145 visits). The most common drugs involved were anti-anxiety and insomnia medications and narcotic pain relievers.¹⁶
- From 2004 to 2011, the rate of ED visits involving misuse or abuse of pharmaceuticals has increased by 114%. The rate of ED visits involving central nervous system stimulants increased by 292% and anti-anxiety and insomnia medication visits increased by 124%.¹⁶

Cost data

- Fatal unintentional poisoning costs were about \$68 million in 2010. Of this amount, the combined cost of work loss and medical costs was an average of \$653,429 per fatality.¹⁴
- In the U.S., prescription opioid abuse costs were about \$55.7 billion in 2007. Of this amount, 46% was attributable to lost productivity, 45% to healthcare costs (e.g., abuse treatment) and 9% to criminal justice costs.¹⁷

How does drug poisoning affect Indiana?

- Poisoning is the leading cause of injury deaths in Indiana, and drugs cause 9 out of 10 poisoning deaths. Drug overdose deaths increased five-fold since 1999, surpassing motor vehicle traffic-related deaths in 2008.
- Indiana had a statistically significant increase in the rate of drug overdose deaths from 2013 to 2014.¹⁵
- In 2014, the drug overdose death rate was 17.9 deaths per 100,000 persons, compared to a motor vehicle traffic-related death rate of 10.7 deaths per 100,000 persons.¹⁴
- In 2014, there were 1,152 drug poisoning deaths in Indiana, compared to 184 in 1999. Heroin overdose deaths increased from less than 5 in 1999 to 170 in 2014. Deaths due to benzodiazepine overdose increased from 7 in 1999 to 84 in 2014.¹⁸
- In 2014, there were 18.1 drug poisoning deaths per 100,000 in Indiana, a rate slightly higher than the national rate of 14.6 and the Midwest rate of 16.0. Indiana ranks 16th for drug overdose deaths.¹⁴
- Males had drug poisoning death rates 1.5 times higher than females and persons aged 35-39 years had the highest rate of all age categories (36.4 per 100,000).¹⁴
- The 2011 Youth Risk Behavior Survey found over 21% of Indiana 9th-12th graders have taken a controlled prescription drugs for non-medical reasons.
- In 2014, there were 12,145 non-fatal drug poisoning-related emergency department visits, of which 2,822 visits were due to opioid overdose.¹⁸
- In January 2015, the prescription drug abuse epidemic in Indiana gained national prominence for its link to an epidemic of acute HIV infection in a rural city resulting from sharing syringes while injecting oral oxycodone (OPANA®). As of February 2016, 188 people have been diagnosed with HIV; approximately 88% of those are co-infected with hepatitis C. The affected county ranks second in the state for average age-adjusted prescription drug overdose mortality rates (33.48 for years 2002-2013).¹⁸

How do we address this problem?

Collaborations:

- Established by Executive Order, the **Governor's Task Force on Drug Enforcement, Treatment, and Prevention** will bring together Indiana experts from a variety of specialties to evaluate the growing national drug problem here in Indiana. Specifically, the Task Force is charged with:
 - **Statewide assessment:** Evaluate the existing resources across all areas, identify gaps in enforcement, treatment and prevention and provide recommendations for improvement;
 - **Enforcement:** Identify effective strategies so federal, state and local law enforcement can partner together to combat drug abuse;
 - **Treatment:** Analyze available resources for treatment and identify best practices for treating drug addiction;
 - **Prevention:** Identify programs and/or policies which are effective in preventing drug abuse, including early youth intervention programs. Website: <http://www.in.gov/gtfdetp/index.htm>.
- The **Indiana Attorney General's Prescription Drug Abuse Task Force** (Task Force) works to significantly reduce the abuse of controlled prescription drugs and to decrease the number of deaths associated with these drugs in Indiana. The Task Force employs a multi-modal, multi-disciplinary approach through five Committees: (1) Education; (2) Enforcement; (3) INSPECT (4) Take Back; and (5) Treatment & Recovery. Website: <http://www.in.gov/bitterpill/>.

- The multi-branch **statewide Commission on Improving the Status of Children in Indiana**, in cooperation with other entities, studies issues concerning vulnerable youth and makes recommendations concerning pending legislation, review and promotes information sharing and best practices. As part of the Commission, the **Substance Abuse and Child Safety Task Force's** mission is to "Explore best practices and evidenced-based research to create positive, lasting outcomes for children who abuse drugs, live in households where drug abuse exists, or who are in need of mental health treatment. To that end, our aim is to craft effective ways to address gaps in mental health and substance abuse services between urban and rural communities, the lack of long-term solutions for children with mental health and substance abuse problems in and out of the juvenile justice system and financial barriers to receiving mental health and substance abuse treatment regardless of where families live." Website: <http://www.in.gov/children/2358.htm>.
- The **Indiana Trauma and Injury Prevention State Plan** includes opportunities for collaborative poisoning and drug overdose prevention efforts.
- ISDH Division of Mental Health and Addiction **Substance Abuse Prevention and the Mental Health Promotion Strategic Plan 2012-2017**. Website: <http://www.in.gov/fssa/dmha/4484.htm>.

Data collection:

- **INSPECT**, Indiana's prescription drug monitoring program, was designed to serve as a tool to address the problem of prescription drug abuse and diversion in Indiana. By compiling controlled substance information into an online database, INSPECT performs two critical functions:
 - Maintain a warehouse of patient information for health care professionals.
 - Provide an important investigative tool for law enforcement.
 Indiana was the first state in the nation to share data with all neighboring states and continues to share live data with other states. Website: <http://www.in.gov/pla/inspect/>.
- Naloxone use by Emergency Medical Service (EMS) providers is captured in the pre-hospital component of the **Indiana Trauma Registry**. Additionally, with legislation passed in 2015, the ISDH will capture data on naloxone use by lay persons. Website: <https://optin.in.gov>.
- The **Indiana State Department of Health Division of Trauma and Injury Prevention** conducts statewide injury surveillance of overdose deaths through death certificates, hospitalizations and ED visits. The Drug Overdose Information website: <http://www.in.gov/isdh/26689.htm>.
- The Indiana State Department of Health received a grant from the CDC to help prevent overdose deaths related to prescription opioids as part of the **CDC's Prescription Drug Overdose: Prevention for States program**. Funding will support enhancements to INSPECT, the Indiana prescription drug monitoring program at the Indiana Professional Licensing Agency; improvements to opioid prescribing practices, prevention efforts at the state and community levels to address new and emerging problems related to prescription drug overdoses and a partnership with the IU Fairbanks School of Public Health to evaluate opioid prescribing practices in Indiana. The funding will be used to expand the Indiana Violent Death Reporting System to provide additional data regarding opioid overdose at the county level and will help inform prevention efforts and expand use of data for public health surveillance.

Policy:

- The 2013 legislative session ensured the sustainability of INSPECT by dedicating 100% of the Indiana Controlled Substance Registration (CSR) fees paid by prescribers to support ongoing use and maintenance of INSPECT, required owners of pain management clinics to maintain a CSR, and required the Medical Licensing Board (MLB) to adopt rules for prescribing opioids for chronic pain. The Task Force assisted with rule promulgation and published a complementary prescriber toolkit.
- The Task Force highlighted inconsistent reporting of Neonatal Abstinence Syndrome (NAS) during the 2014 legislative session. A NAS Committee of the Indiana Perinatal Quality Improvement Collaborative (IPQIC) Network developed screening and reporting protocols to assess the NAS burden, now implemented in a pilot program.

Additional legislation passed reduces the reporting interval to INSPECT from seven days to 24 hours, effective January 2016 and permits first responder use of naloxone.

- Senate Enrolled Act 406 during the 2015 legislative session, commonly referred to as the “Naloxone Bill”, allows for broader distribution of naloxone, a prescription drug that reverses the effects of an opioid overdose. Prescribers can prescribe directly to someone at-risk or to their family/friends or by standing order. The prescriber has to provide instructions on how to use the drug, ensure that emergency authorities are called if the drug is used and provide information on drug addiction treatment information (including Vivitrol). When the authorities are called, they must register the dispensing of naloxone with the Indiana Trauma Registry. The ISDH must work with the Indiana Department of Homeland Security on this reporting requirement.

Education:

- **“First Do No Harm: The Indiana Healthcare Providers Guide to the Safe, Effective Management of Chronic Non-Terminal Pain”** developed by the Indiana Prescription Drug Abuse Prevention Task Force’s Education Committee. This provider toolkit, based on expert opinion and recognized standards of care, was developed over many months with the input of healthcare providers representing multiple specialties and all corners of the state. First Do No Harm provides options for the safe and responsible treatment of chronic pain, including prescriptions for opioids when indicated, with the ultimate goals of patient safety and functional improvement. It was developed as an interactive compendium to the new Medical Licensing Board rule addressing Opioid Prescribing for Chronic, Non-terminal Pain. Website: http://www.in.gov/bitterpill/files/First_Do_No_Harm_V_1_0.pdf.
- **Substance Abuse and Mental Health Services Administration Opioid Overdose Prevention Toolkit** - Updated 2014 equips communities and local governments with material to develop policies and practices to help prevent opioid-related overdoses and deaths. Addresses issues for first responders, treatment providers and those recovering from opioid overdose. Website: <http://store.samhsa.gov/product/Opioid-Overdose-Prevention-Toolkit-Updated-2014/SMA14-4742>.
- **CDC education recommendations:**
 - Talk with your doctor about:
 - The risks of prescription painkillers and other ways to manage your pain.
 - Making a plan on when and how to stop, if a choice is made to use prescription painkillers.
 - Use prescription painkillers only as instructed by your doctor.
 - Store prescription painkillers in a safe place and out of reach of others.
 - Help prevent misuse and abuse by not selling or sharing prescription painkillers. Never use another person's prescription painkillers. Website: <http://www.cdc.gov/drugoverdose/epidemic/public.html>.
- **CDC Policy Impact: Prescription Painkiller Overdoses** presents evidence-based policy approaches to help reverse the prescription painkiller overdose epidemic: <http://www.cdc.gov/drugoverdose/pdf/policyimpact-prescriptionpainkillerod-a.pdf>.
- The CDC Injury Center released several Vital Signs packages:
 1. **Prescription Painkiller Overdoses in the U.S.:** <http://www.cdc.gov/vitalsigns/PainkillerOverdoses/index.html>
 2. **Use and Abuse of Methadone as a Painkiller:** <http://www.cdc.gov/vitalsigns/MethadoneOverdoses/index.html>
 3. **Prescription Painkiller Overdoses - A Growing Epidemic, Especially Among Women:** <http://www.cdc.gov/vitalsigns/PrescriptionPainkillerOverdoses/index.html>
 4. **Opioid Painkiller Prescribing - Where You Live Makes a Difference:** <http://www.cdc.gov/vitalsigns/opioid-prescribing/>
 5. **Today’s Heroin Epidemic:** <http://www.cdc.gov/vitalsigns/heroin/index.html>

Interventions:

- CDC recommends patients who are prescribed opioid pain relievers be counseled against sharing medications, about proper medication storage, use and disposal and compliance with prescribing physician’s instructions.¹⁹
- **Disposal of unused** medications through **proper disposal** and **Drug Take-Back Events** ensures unwanted or unneeded medications do not end up on the street or damage the environment.

- Get help for **Substance Abuse Problems** via SAMHSA’s National Helpline: 1-800-662-HELP or through SAMHSA’s **Behavioral Health Treatment Services Locator**: <https://findtreatment.samhsa.gov/>.
- **Opioid Treatment Program Directory**: <http://dpt2.samhsa.gov/treatment/directory.aspx>.
- **Buprenorphine Physician & Treatment Program Locator**: <http://www.samhsa.gov/medication-assisted-treatment/physician-program-data/treatment-physician-locator>.
- If a poisoning occurs, remain calm and:
 - Call 911 if you have a poison emergency and the victim has collapsed or is not breathing.
 - Call the Indiana Poison Center Helpline: 1-800-222-1222 if the victim is awake and alert. Try to have this information ready: 1) the victim’s age and weight, 2) the container or bottle of the poison if available, and 3) the time and address of the poison exposure.
- **Project Lazarus** works to prevent deaths due to drug overdose through community activation and coalition building, monitoring and epidemiologic surveillance, prevention of overdose through medical education and other means, use of overdose reversing medication by community members and evaluation of program components. Website: <http://www.projectlazarus.org/>.

Measures: Healthy People 2020:

Injury and Violence Prevention (IVP)-9: Prevent an increase in poisoning deaths.

IVP-9.1: Prevent an increase in poisoning deaths among all persons.

IVP-9.2: Prevent an increase in poisoning deaths among persons aged 35 to 54 years.

IVP-9.3: Prevent an increase in poisoning deaths caused by unintentional or undetermined intent among all persons.

IVP-9.4: Prevent an increase in poisoning deaths caused by unintentional or undetermined intent among persons aged 35 to 54 years.

IVP-10: Prevent an increase in non-fatal poisonings.

SA-12: Reduce drug-induced deaths.

SA-19: Reduce the past-year nonmedical use of prescription drugs.

SA-19.1: Reduce the past-year nonmedical use of pain relievers.

SA-19.2: Reduce the past-year nonmedical use of tranquilizers.

SA-19.3: Reduce the past-year nonmedical use of stimulants.

SA-19.4: Reduce the past-year nonmedical use of sedatives.

SA-19.5: Reduce the past-year nonmedical use of any psychotherapeutic drug (including pain relievers, tranquilizers, stimulants and sedatives).

Additional resources:

- ISDH Division of Trauma and Injury Prevention: <http://www.in.gov/isdh/19537.htm> and <http://www.in.gov/isdh/26689.htm>
- DMHA Bureau of Mental Health Promotion and Addiction Prevention: <http://www.in.gov/fssa/dmha/index.htm>
- Indiana Attorney General Prescription Drug Abuse Prevention Task Force: <http://www.in.gov/bitterpill/>
- Indiana Poison Center Helpline: 1-800-222-1222 <http://indianapoison.org/>
- Indiana Governor’s Task Force on Drug Enforcement, Treatment and Prevention: <http://www.in.gov/gtfdetp/index.htm>
- INSPECT (Indiana’s Prescription Drug Monitoring Program): <http://www.in.gov/pla/inspect/>
- Indiana State Epidemiology and Outcomes Work Group: EPI Profile: <http://www.healthpolicy.iupui.edu/projectDetail.aspx?ProjectID=4395>
- Drug-Free Workplace: 1-800-967-5752: <http://workplace.samhsa.gov/>
- Harm Reduction Coalition Tools & Best Practices: <http://harmreduction.org/issues/overdose-prevention/tools-best-practices/>
- National Safety Council: <http://www.nsc.org/pages/home.aspx>
- Prevent Child Injury: Medication Safety Toolkit: <http://www.preventchildinjury.org/toolkits/medicationsafety>
- Substance Abuse and Mental Health Services Administration (SAMHSA): <http://www.samhsa.gov>; Helpline: 1-800-662-4357
- U.S. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control: <http://www.cdc.gov/homeandrecreationalafety/poisoning/index.html>
- U.S. Drug Enforcement Administration: <http://www.dea.gov/index.shtml>

- o. U.S. Food and Drug Administration Disposal of Unused Medicines:
<http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm101653.htm>

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