National Institute on Drug Abuse (NIDA)
Kentucky Opioid Summary

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https://www.drugabuse.gov
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Opioid-Involved Overdose Deaths

In 2017, there were 1,160 reported opioid-involved deaths in Kentucky—a rate of 27.9 deaths per 100,000 persons, compared to the average national rate of 14.6 deaths per 100,000 persons.

From 1999 through 2015, prescription opioids were the underlying cause of drug overdose deaths. By 2017, the main contributor of opioid-involved deaths shifted to synthetic opioids other than methadone (mainly fentanyl) with 780 reported deaths—a more than tenfold increase from the 76 deaths reported in 2013 (Figure 1). The number of opioid deaths involving heroin trended down from 311 deaths in 2016 to 269 deaths in 2017. Deaths involving prescription opioids totaled 433 in 2017 and have not shown a significant change in the recent years.

Figure 1. Number of overdose deaths involving opioids in Kentucky, by opioid category. Drug categories presented are not mutually exclusive, and deaths might have involved more than one substance. Source: CDC WONDER.
Opioid Pain Reliever Prescriptions

Kentucky is among the top 10 states with the highest prescribing rates. In 2017, Kentucky providers wrote 86.8 opioid prescriptions for every 100 persons (Figure 2) compared to the average U.S. rate of 58.7 prescriptions (CDC). The 2017 prescribing rate, however, represents a more than a 36 percent decrease from a peak of 137.0 opioid prescriptions per 100 persons in 2011.

The rate of overdose deaths involving opioid prescriptions rose steadily from 1.0 deaths per 100,000 persons in 1999 to 10.2 deaths per 100,000 persons in 2017 (Figure 2).

![Figure 2. Kentucky rate of overdose deaths involving prescription opioids and the opioid prescribing rate. Source: CDC and CDC WONDER.](image)

Neonatal Abstinence Syndrome (NAS)

NAS or neonatal opioid withdrawal syndrome (NOWS) may occur when a pregnant woman uses drugs such as opioids during pregnancy. A recent national study revealed a fivefold increase in the incidence of
NAS/NOWS between 2004 and 2014, from 1.5 cases per 1,000 hospital births to 8.0 cases per 1,000 hospital births. This is the equivalent of one baby born with symptoms of NAS/NOWS every 15 minutes in the United States. During the same period, hospital costs for NAS/NOWS births increased from $91 million to $563 million, after adjusting for inflation (Figure 3).

To date, there is no standard in NAS/NOWS provider and hospital coding practices (CDC). As a result, the trends and rates reported by states varies. The number of NAS/NOWS cases in Kentucky totaled 1,115 in 2016 based on hospital discharge data (Kentucky Cabinet for Health and Family Services). The rate of NAS/NOWS in the same year was 23.3 cases per 1,000 hospital births, with the highest rates occurring in the eastern counties of Kentucky River (69.0 cases per 1,000 hospital births), Big Sandy (68.7 cases per 1,000 hospital births) and Cumberland Valley (62.9 cases per 1,000 hospital births).

![Figure 3. NAS/NOWS Incidence rate and hospital costs for treatment in the United States. Source: T.N.A. Winkelman, et al., 2018.](image)

**HIV Prevalence and HIV Diagnoses Attributed to Injection Drug Use (IDU)**
• **U.S. Incidence:** In 2016, 9 percent (3,480) of the 39,589 new diagnoses of HIV in the United States were attributed to IDU. Among males, 6.3 percent (2,530) of new cases were transmitted via IDU or male-to-male contact and IDU. Among females, 2.3 percent (950) were transmitted via IDU ([CDC](https://www.cdc.gov)).

• **U.S. Prevalence:** In 2016, 991,447 Americans were living with a diagnosed HIV infection—a rate of 306.6 cases per 100,000 persons. Among males, 19.9 percent (150,466) contracted HIV from IDU or male-to-male contact and IDU while 21 percent (50,154) of females were living with HIV attributed to IDU ([CDC](https://www.cdc.gov)).

• **State Incidence:** Of the new HIV cases in 2016, 319 occurred in Kentucky. Among males, 11.1 percent of new HIV cases were attributed to IDU or male-to-male contact and IDU. Among females, 12.5 percent of new HIV cases were attributed to IDU (Figure 4) ([AIDSVu](https://www.aidsvu.org)).

• **State Prevalence:** In 2015, an estimated 6,644 persons were living with a diagnosed HIV infection in Kentucky—a rate of 179 cases per 100,000 persons. Of those, 14.0 percent of male cases
were attributed to IDU or male-to-male contact and IDU. Among females, 21.4 percent were living with HIV attributed to IDU (AIDSVu).

**Hepatitis C (HCV) Prevalence and HCV Diagnoses Attributed to Injection Drug Use**

- **U.S. Incidence:** In 2016, there were an estimated 41,200 new cases of acute HCV (CDC). Among case reports that contain information about IDU, 68.6 percent indicated use of injection drugs (CDC).

- **U.S. Prevalence:** An estimated 2.4 million Americans are living with HCV based on 2013-2016 annual averages (CDC).

- **State Incidence:** There were approximately 103 new cases of acute HCV (2.3 per 100,000 persons) reported in Kentucky in 2016 (CDC).

- **State Prevalence:** In Kentucky, there are an estimated 43,000 persons living with Hepatitis C (2013-2016 annual average), a rate of 1,270 cases per 100,000 persons (HepVu).

**National Institutes of Health-Funded Research**

The National Institute on Drug Abuse (NIDA), in partnership with the Appalachian Regional Commission (ARC) are supporting services planning research grants to address a dramatic increase in adverse outcomes associated with increased opioid injection drug use in Appalachia. The grants will help develop an epidemiologic understanding of opioid injection drug use, HIV and hepatitis C virus (HCV) infection risk, and other adverse health consequences of drug use in any of the 420 Appalachian counties (http://www.arc.gov/counties).

**Additional Resources**
FY2018 NIH-funded projects related to opioid use and use disorder in Kentucky: 11

Find treatment in Kentucky (SAMHSA)

Notes

1. Not all states collect or report data on the incidence or prevalence of Hepatitis C or on how Hepatitis C is transmitted. When available, the data will be included.

2. Actual acute cases are estimated to be 13.9 times the number of reported cases in any year.