Using Opioids Safely: Trends in Opioid Prescribing and Related Mortality

Anatomy of an Epidemic

During the past two decades, growing numbers of patients with chronic non-cancer pain have been offered long-term opioid therapy. As noted, this change in prescribing behavior was influenced by several competing interests. The overall increase in prescribing was accompanied by a parallel increase in unintentional overdoses and deaths from prescription opioids, as well as other measures of opioid-related harm including nonmedical use, emergency department visits, and treatment admissions.

From 1999-2010, increases in opioid-related overdose deaths (defined as those in which a prescription of illicit opioid contributed substantially to an individual’s cause of death as determined by death certificates) were largely attributed to prescription opioids. Opioids—prescription and illicit—are the main driver of drug overdose deaths.

In 2016:
- Opioids were involved in 42,249 deaths
- Opioid overdose deaths were five times higher than 1999
- Men accounted for 67.5% of all opioid-related deaths
- The burden was highest among adults aged 24 to 35 years

These premature deaths exact a large human toll and represent a public health burden across the United States. While these deaths are characterized opioid-related, other substances, including benzodiazepines and alcohol also are often contributory; the actual source of the opioid is not well characterized. Among synthetic opioid-related overdose deaths in 2016, nearly 80% involved another drug or alcohol.
Heroin Use

The proportion of those reporting imitation of nonmedical use of prescription opioids before initiating heroin use increased from 35% to 53% from 2001-2013 among white individuals. Since 2011, increases in opioid-related overdose deaths have been driven largely by heroin, and more recently illicit fentanyl and potent synthetic analogues contaminating the heroin supply. This change coincided with a 29% decrease in opioid prescribing as measured by morphine milligram equivalents from 2011-2017. The nature and extent of the epidemic are changing.

Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000–2016

Heroin-related overdose deaths increased fivefold from 2010 to 2016. From 2015 to 2016, heroin overdose death rates increased by 19.5%, with nearly 15,500 people dying in 2016. In 2016, males aged 25-44 had the highest heroin death rate at 15.5 per 100,000, which was an increase of 17.4% from 2015. While past misuse of prescription opioids is the strongest risk factor for starting heroin use, up to one-third of people presenting for treatment for addiction to opioids, and who initiated use of an opioid in 2015, started by experimenting with heroin.

Opioid new therapy starts declined to 2.9 million monthly at end of 2017, those characterized as “high doses” (>90 morphine milligram equivalents daily) declined at a faster rate than the number of prescription, and medication assisted treatment starts increased sharply, nearly doubling. In order to make significant progress, the number of individuals who misuse opioids and/or develop opioid use disorder must decline, and treatment for those who are already affected must increase substantially.
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Citations


Compton WM, Jones CM, and Baldwin GT. Understanding the Relationship between Prescription Opioid and Heroin Abuse. *NEJM*. 2016;374:1296


