

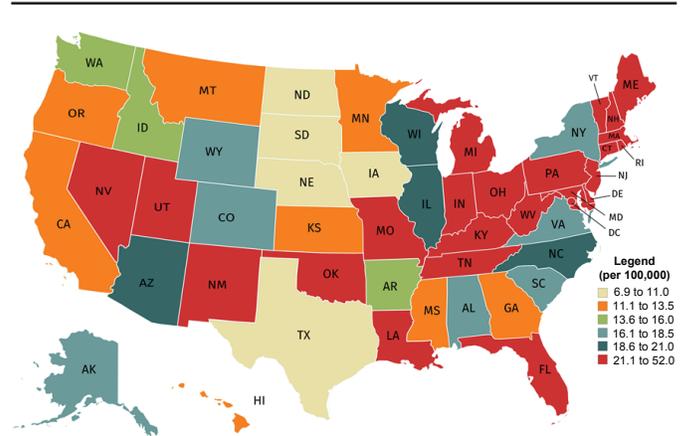


# The opioid epidemic and socioeconomic disadvantage

Opioid abuse has become so widespread that the U.S. Centers for Disease Control and Prevention (CDC) officially declared an opioid epidemic in 2011, and the problem has continued to grow; President Trump declared it a public health emergency in October 2017. At least 2 million Americans abuse prescription opioids and almost 600,000 abuse heroin, an illicit opioid, according to 2017 National Academies estimates.<sup>1</sup> The crisis is national in scope, but most severe in the Northeast, Rust Belt (Midwest), Appalachia, and many southern states. Although substance abuse and addiction are complex social problems experienced by people from all walks of life, recent studies by leading social scientists suggest that opioid abuse and social and economic disadvantage are often intertwined. This brief draws the contours of the opioid crisis, explores studies of the connections of socioeconomic status (SES) with deaths from drug and alcohol abuse as well as suicide (“deaths of despair”), and concludes by identifying some key research gaps.

## Opioid overdose is now the leading cause of accidental death in the United States

In the first 15 years of the 21st century, more than half a million people died from opioid overdose in the United States; 40 percent of these deaths were from prescription, as opposed to illicit, opioids.<sup>2</sup> Although prescription painkillers initially drove the opioid epidemic, over time the crisis has progressed to include heroin and synthetic opioids.<sup>3</sup> Recent research using 1992 to 2011 National Health Interview Survey data combined with data from the National Vital Statistics System indicates that the recent drug overdose epidemic—driven largely by prescription opioids and heroin—has implications for life



**Figure 1. Drug overdose death rates vary considerably by state, but are highest in the Northeast, Midwest, Appalachia, and many Southern states: 2016.**

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention.

expectancy differences by education level. Specifically, while drug overdose deaths have grown for all education groups, those with less than a high school education lost the most years of life. Overdose deaths now represent a substantial share of the widening inequality in life expectancy by education level.<sup>4</sup>

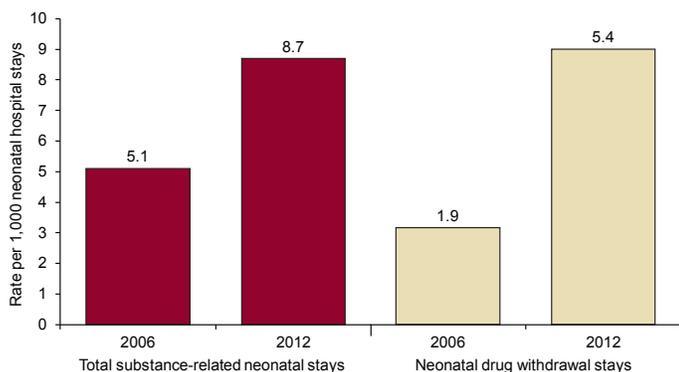
The epidemic appears to be growing. In 2016, opioid overdose killed 91 Americans every day, a 21 percent increase in such deaths from 2015.<sup>5</sup> Deaths from fentanyl, a synthetic opioid that is 50 times more potent than heroin and 100 times more powerful than morphine, rose 540 percent in three years, in part because illicit drug suppliers learned how to manufacture fentanyl and started adding it to cocaine and other street drugs, often without users’ knowledge.<sup>6</sup> Between 2000 and 2015, drug overdose deaths, two-thirds of which involved opioids, increased for all age groups (from 15 to 24 to 65+). In 2015, the highest overdose death rate by age group and race was among 45- to 54-year-old non-Hispanic whites. Although whites and American Indians continue to have the highest opioid overdose death rates among racial and ethnic groups, recent CDC data indicate that the drug death rate is increasing most sharply among African Americans.<sup>7</sup>

## A baby addicted to opioids is born every 25 minutes

The number of babies born with symptoms of drug withdrawal—Neonatal Abstinence Syndrome (NAS), see Figure 2—due mostly to maternal opioid use during pregnancy is also significantly increasing. The CDC estimates that a baby suffering

**Opioid crisis statistics**

- 500,000+:** Opioid overdose deaths between 2000 and 2015
- 91:** Opioid overdose deaths every day in 2016
- 40 percent:** Opioid overdose deaths from prescribed (vs. illicit) drugs
- 540 percent:** Three-year increase in deaths from fentanyl overdose, 2014–2016
- 41 percent:** Increase in opioid overdose death rate among African Americans in 2016
- 45- to 54-year-olds:** Age group with the highest opioid overdose death rate in 2015
- 6.2 to 21.1 percent:** Increase in opioid overdose death rate among non-Hispanic whites between 1999 and 2015
- 383 percent:** Increase in incidence of NAS from 2000 to 2012



**Figure 2. Total substance-related neonatal hospital stays increased by 71% and neonatal drug withdrawal stays increased by 187% from 2006 to 2012.**

**Source:** Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), State Inpatient Databases (SID) from 38 states, 2006 and 2012.

from NAS caused by in utero opioid exposure is born every 25 minutes.<sup>8</sup> In 2012, 81 percent of hospital charges for NAS were covered by state Medicaid programs, which cover low-income populations, suggesting a potential link between poverty and opioid abuse.<sup>9</sup> Sixty-five percent of newborn hospitalizations related to substance use in 2012 were to mothers in the lowest two median income quartiles, compared to 33 percent in the two highest median quartiles (median income of patient’s zip code of residence).<sup>10</sup> Of course, differences in identified cases may reflect differences by socioeconomic status in underlying use and/or differences in the likelihood that newborns are tested for exposure.

### Low education and limited labor market opportunities are often entangled with opioid use

In her recent study of how drug overdose contributes to educational differences in life expectancy, Jessica Ho suggests that less-educated individuals may have fewer disincentives and greater risk factors for engaging in drug use than their more educated counterparts. This is reflected in the fact that, on average, less-educated individuals face poor job prospects, flat or declining earnings and income, and greater risk of workplace injuries, disability, and chronic health conditions (which often lead to opioid prescriptions); it may also be a contributing factor in the geographic shift in drug overdose from urban to rural areas.<sup>11</sup> Consistent with Ho’s findings, Anne Case and Angus Deaton’s analyses of mortality and morbidity in recent decades finds rising mortality rates among non-Hispanic whites without a college degree and falling mortality rates for those with a college degree.<sup>12</sup> They hypothesize that “a preliminary but plausible story in which ‘cumulative disadvantage’ from one birth cohort to the next—in the labor market, in marriage and child outcomes, and in health—is triggered by progressively worsening labor market opportunities” at the time when whites with low levels of education are starting their working lives.<sup>13</sup> They further conclude that deaths of despair for whites may be linked to the decline of marriage, social isolation, and detachment from the labor force.<sup>14</sup>

*For a list of the sources used for this brief and further reading, visit [www.irp.wisc.edu/publications/fastfocus.htm](http://www.irp.wisc.edu/publications/fastfocus.htm). Edited by Deborah Johnson.*

*The Institute for Research on Poverty (IRP) at the University of Wisconsin–Madison is a center for interdisciplinary research into the causes and consequences of poverty and inequality and the effectiveness of policies and programs designed to address them. As the National Poverty Research Center sponsored by the U.S. Department of Health and Human Services, IRP integrates research, training, and dissemination activities to effectively build and apply research evidence on key policy questions and develop a broad and diverse cadre of researchers addressing poverty and low-income populations.*

There is also evidence linking opioid use and labor force participation (LFP). Work by Alan Krueger, for example, indicates that the opioid crisis and depressed LFP rates are intertwined in many U.S. areas.<sup>15</sup> Specifically, his analyses show that LFP is lower and has declined more over time in counties with higher rates of opioid prescriptions, even after controlling for the local share of manufacturing employment and individual characteristics. Nonetheless, he is careful to note that the direction of causality in this and related findings is unclear.<sup>16</sup> In addition to academics, policymakers also are analyzing connections between low SES and opioid abuse. U.S. Senator Mike Lee and Scott Winship, for example, are examining the problem as part of their Social Capital Project of the U.S. Senate Joint Economic Committee. They have created a dynamic U.S. map showing the spread of the opioid crisis by county using CDC mortality data.<sup>17</sup>

### Government budgets are strained by opioid crisis

The White House Council of Economic Advisers (CEA) recently estimated that opioid epidemic-related spending on health care, substance abuse treatment, criminal justice, and lost productivity was \$72.3 billion in 2015, and the cost of opioid fatalities was \$431.7 billion.<sup>18</sup> The intensity of the opioid crisis varies significantly across states. The American Enterprise Institute found that the state-level, nonfatal per capita economic cost of opioid abuse is highest in the District of Columbia, at \$352 per resident, and lowest in South Dakota, at \$162 per resident.<sup>19</sup> In Ohio, a hard-hit state, researchers estimate the opioid epidemic costs the state between \$6.6 billion and \$8.8 billion per year, about what it spends annually on K-12 education.<sup>20</sup> The opioid epidemic is also associated with substantial increases in foster care placements, which have considerable cost implications for states and the federal government. The link between the opioid epidemic and rising foster care rates will be the subject of a future *Fast Focus* brief.

### Some gaps in research knowledge

Increased understanding of the epidemic will inform efforts to prevent and treat opioid abuse. The following are a few key research challenges:

- Investigate how best to work with medical professionals to implement widespread adherence to opioid prescribing guidelines.
- Develop new, non-addictive pain treatments.
- Examine long-term developmental outcomes related to opioid exposure during pregnancy and NAS and identify promising compensatory interventions.
- Evaluate the impact and cost of education programs that raise awareness of the potential dangers of opioid use among patients with pain as well as the general public.
- Identify the most efficient and effective treatment strategies for particular populations struggling with opioid addiction. ■