

The Opioid Epidemic - Economic Ramifications

While the opioid epidemic has been the source of significant public health concern in the U.S., one aspect of this crisis that is often overlooked is the economic ramifications of prescription opioid misuse. A recent cost analysis found that prescription opioid misuse costs the U.S. approximately \$78.5 billion in 2013.¹ This economic loss stems from increased healthcare expenditures, criminal justice costs, and productivity loss.² National health expenditures (NHE) as a percentage of the gross domestic product (GDP) has been trending upward in recent years,³ and opioid misuse has played a significant role in this by increasing health expenditures.

Healthcare costs have been rising due, in part, to the burdens of treating the opioid epidemic. Opioid-related healthcare costs are made up of both utilization expenditures and prescription drug claims.⁴ Opioidrelated healthcare costs account for approximately onethird of the total economic loss due to the opioid epidemic.⁵ Prescription opioid abuse has been rising since 2005, as demonstrated by increases in opioidrelated inpatient stays and *emergency department* (ED) visits.6 Of note, the rate of increase for opioid-related ED visits has outpaced the rate of opioid-related inpatient stays, 99.4 percent and 64.1 percent, respectively.⁷ The increasing demand of EDs threatens quality of care and access to these life-saving services.8 This problem is also exacerbated because, as this demand for EDs has been increasing, the number of EDs and inpatient beds has decreased.9

The opioid epidemic has also increased the cost to the criminal justice system through increased: police protection; legal and adjudication costs; burdens on correctional facilities; and, crime-related property damage.¹⁰ Criminal justice costs account for 9.7 percent of the overall economic cost related to the opioid epidemic.¹¹ In addition to the economic strains on the criminal justice system, prisons are significantly overcrowded,¹² despite the most current data showing a decrease in the federal incarceration population.¹³

Productivity loss due to the opioid epidemic occurs when someone is unable to work because the individual: suffers from opioid misuse disorder; is tending to someone suffering from the disorder; or, has fatally overdosed.¹⁴ Productivity loss accounts for approximately 53.3 percent of the total economic loss caused by opioid misuse.¹⁵ While many employers have policies in place to promote a drug-free workplace, often, these policies only apply to illegal drugs and ignore the consequences that legally prescribed drugs can have on the workplace.¹⁶ According to the *Society for Human Resource Management* (SHRM), seven out of ten employers have been negatively affected by employee prescription drug use.¹⁷ The two most likely ways in which employers are affected are through: (1) employee absenteeism; and, (2) prescription drug use at work.¹⁸ Additionally, the *American Society of Addiction Medicine* states that employers lose \$10 billion annually from employee absenteeism and lost productivity due to opioid misuse.¹⁹

Approximately 25 percent of total economic costs of the opioid epidemic is borne by the government through government-funded insurance programs and criminal justice costs.²⁰ Government and third party payors are also affected by the opioid epidemic, in that a beneficiary with opioid misuse disorder costs \$15,500 more to insure with private insurance, \$13,743 with Medicaid, and \$17,052 with Medicare per year.²¹ From 2006 to 2015 Medicare Part D prescription opioid spending rose by 165 percent, to over \$4 billion.²² These sharp increases render it difficult for payors to provide a more affordable drug coverage plan.

Recognizing that the opioid epidemic has been a burden on both public health and the U.S. economy, government agencies have begun to acknowledge the extent of the crisis and have taken steps to combat the epidemic. For instance, the *Value-Based Payment Program* (VBP Program) has removed the connection between patient pain and reimbursement.²³ Federal and state agencies have taken action by: implementing *Prescription Drug Monitoring Programs* (PDMPs); restricting the supply of opioids; and, educating physicians about alternative treatment options.²⁴

Although the media has recently brought the opioid epidemic into public discourse and garnered the attention of lawmakers, industry stakeholders, and the general public, opioid prescriptions have trended downward since their peak in 2010.²⁵ Even with this decline, opioid prescriptions are still three times higher than in 1999.²⁶ The negative effects of long-term opioid misuse may continue to lead to increased healthcare expenditures, even after actual prescription numbers decrease. Efforts by lawmakers and industry stakeholders will have to focus not just on the short-term goal of combating, and eradicating, the opioid epidemic, and its associated

economic ramifications, but the long-term effects (and resulting costs) of this crisis.

"The Economic Burden of Prescription Opioid Overdose, Abuse, and Dependence in the United States, 2013" By Curtis Florence, PhD et al., Wolters Kluwer Health, Inc., Medical Care, Vol. 54, No. 10 (October 2016), p. 904.

- 3 "NHE Fact Sheet - Historical NHE, 2015" Centers for Medicare and Medicaid Services, June 2017, https://www.cms.gov/research-statistics-data-andsystems/statistics-trends-andreports/nationalhealthexpenddata/nhe-fact-sheet.html (Accessed 9/15/17).
- Florence, October 2016.
- 5 Ibid.

"Patient Characteristics of Opioid-Related Inpatient Stays and 6 Emergency Department Visits Nationally and by State, 2014" By Audrey Weiss et al., Agency for Healthcare Research and Quality, June 2017, https://www.hcupus.ahrq.gov/reports/statbriefs/sb224-Patient-Characteristics-Opioid-Hospital-Stays-ED-Visits-by-State.pdf (Accessed 7/5/17).

- 7 "Opioid-related Inpatient Stays and Emergency Department Visits by State, 2009-2014" By Audrey Weiss, PhD et al., Healthcare Cost and Utilization Project, January 2017, https://www.hcup-us.ahrq.gov/reports/statbriefs/sb219-Opioid-Hospital-Stays-ED-Visits-by-State.jsp (Accessed 9/15/17).
- 8 "Forecasting Emergency Department Crowding: A Prospective, Real-time Evaluation" By Nathan Hoot, PhD et al., Journal of the American Medical Informatics Association, Vol. 16, No. 3 (2009)
- 9 "Quality Field Notes: Reducing Inappropriate Emergency Department Use" Robert Wood Johnson Foundation, 2013, http://www.rwjf.org/en/library/research/2013/09/quality-fieldnotes--reducing-inappropriate-emergency-department.html (Accessed 9/15/17); "Emergency Room Demand Outstrips Supply; Patients Potentially at Risk" By Alwyn Cassil, Health System Change, 2001,
- http://www.hschange.org/CONTENT/313/ (Accessed 9/15/17).
- 10 Florence, October 2016, p. 903.
- Ibid, p. 904. 11
- "Report: Increase in Federal Prison Population, Overcrowding" 12 By Derek Gilna, Prison Legal News, May 2014, https://www.prisonlegalnews.org/news/2014/may/19/report-

increase-federal-prison-population-overcrowding/ (Accessed 9/15/17).

"BJS - Prisoners in 2015" Bureau of Justice Statistics, 13 December 2016, https://www.bjs.gov/content/pub/pdf/p15_sum.pdf (Accessed

9/15/17). 14 Florence, October 2016, p. 904.

- 15 Ibid.
- 16 "As Opioid Epidemic Rages, Worksite Policies Overlook Prescribed Drugs" By Stephen Miller, Society for Human Resource Management, March 17, 2017, https://www.shrm.org/resourcesandtools/hrtopics/benefits/pages/workplace-rx-drug-policies.aspx (Accessed 7/5/17). 17

- 19 "U.S. Companies Losing \$10B a Year Due to Workers' Opioid Abuse" Bertha Coombs, CNBC April 20, 2016, https://www.nbcnews.com/business/business-news/u-scompanies-losing-10b-year-due-workers-opioid-abuse-n559036 (Accessed 9/15/17).
- 20 Florence, October 2016, p. 904.
- 21 Ibid.
- 22 "Against the Backdrop of a 'National Emergency,' Are Opioid Cos. Ready for the Enforcement Spotlight?" By Gary Giampetruzzi et al., Paul Hastings, September 6, 2017, https://www.paulhastings.com/publicationsitems/details/?id=9021ed69-2334-6428-811c-ff00004cbded (Accessed 9/8/17).
- 23 "Opioid Epidemic - Physicians Financially Incentivized to Prescribe?" Health Capital Topics, Vol. 10, No. 7 (July 2017), https://www.healthcapital.com/hcc/newsletter/07_17/PDF/OPIO ID.pdf (Accessed 9/25/17).
- "Opioids: Part II of III Legislation and Regulation Combat 24 Epidemic" Health Capital Topics, Vol. 10, No. 8 (August 2017), https://www.healthcapital.com/hcc/newsletter/08_17/PDF/OPIO ID.pdf (Accessed 9/25/17).
- 25 "Opioid Prescription down, but Numbers Still Dramatically High in Some Places, CDC Says" By Sarah Toy, USA Today, July 6, 2017, https://www.usatoday.com/story/news/2017/07/06/opioidprescriptions-down/456064001/ (Accessed 9/22/17).

² Ibid.

Ibid.

¹⁸ Ibid.

²⁶ Ibid.



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