# Evidence matters research bulletin

## Drug Diversion – Impact and Statistics

The Centers for Disease Control and Prevention (CDC) define drug diversion as the illegal use or obtainment of prescription medicines.<sup>1</sup> In 2010, the United States (US) experienced 38,329 drug overdose deaths, 57% (22,134) involving pharmaceuticals. The pharmaceuticals most commonly involved, alone or in combinations, were opioids 75.2% (16,651), benzodiazepines 29.4% (6,497), antidepressants 17.6% (3,889), and epileptic/antiparkinsonian drugs 7.8% (1,717).<sup>2</sup> Opioid addiction is driving an epidemic - in 2015 there were 52,404 lethal drug overdoses in the US, with 20,101 overdose deaths related to prescription pain killers.<sup>3</sup>

Drug diversion can lead to substandard care being provided by an impaired healthcare worker, to outbreaks of infections in healthcare settings. Outbreaks associated with drug diversion by healthcare workers has been documented in several states. A Texas ambulatory surgery center saw 45 cases of Hepatitis C virus (HCV) infections caused by a surgical technician<sup>4</sup>, and a Florida hospital saw 5 cases of HCV infections by a radiology technician<sup>5</sup>.

The CDC recommends that healthcare facilities should have strong narcotics security measures and active monitoring systems to prevent and detect drug diversion.<sup>1</sup>

The Drug Enforcement Agency (DEA) has a Diversion Control Division, whose mission is to prevent, detect and investigate diversion of controlled pharmaceuticals and listed chemicals from legitimate sources while ensuring an adequate and uninterrupted supply for legitimate medical, commercial, and scientific needs.<sup>6</sup>

The DEA's 2016 National Drug Threat Assessment (NDTA)<sup>7</sup> found an ongoing opioid epidemic (specifically fentanyl), and that deaths due to "synthetic opioids" rose 79% from 3,097 in 2013 to 5,544 in 2014, with fentanyl being the primary contributor to this increase.

One article cited that the estimated cost of controlled prescription drug diversion and abuse to both public and private medical insurers is approximately \$72.5 billion a year. In 2007 alone, the economic cost related to drug abuse as a whole in the United States was estimated at \$193 billion. This includes \$120 billion in lost economic productivity mainly due to labor participation costs, drug abuse treatment, incarceration, and premature death, as well as \$11 billion in health care costs for drug treatment and drug-related medical consequences. Another \$61 billion went to criminal justice costs primarily stemming from investigations, prosecutions, incarceration, and victim costs.<sup>8</sup>

In a court case originating in California, it was alleged that a technician had stolen over 216,630 tablets of hydrocodone bitartrate/acetaminophen, and as a result, the pharmacist-in-charge is being held liable by the state for drug theft, as they are responsible under the law for drug security.<sup>9</sup>

Additionally, a hospital in Georgia was fined \$200,000 and their pharmacy license placed under probation for 3 years when two pharmacy technicians diverted over 1 million doses of alprazolam, hydrocodone and codeine products over the course of more than 4 years.<sup>10</sup>

#### Conclusions

- Drug diversion can lead to substandard care being provided by an impaired healthcare worker, to outbreaks of infections.
- The DEA's 2016 NDTA found an increase of 79% in deaths due to synthetic opioids, and fentanyl as contributing to most of this increase.
- The impact to both individuals and business as a result of drug diversion is significant, and both state and federal law require the facilities take proper precautions to prevent drug diversion.

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- 1. https://www.cdc.gov/injectionsafety/drugdiversion/index.html, Accessed July 26, 2017.
- Jones CA, Mack KA, Paulozzi LJ, Pharmaceutical Overdose Deaths, United States 2010. JAMA. 2013;309(7):657-659. doi:10.1001/jama.2013.272
- 3. Rudd RA, Seth P, David F, Scholl L. Increases in Drug and Opioid-Involved Overdose Deaths Unites States, 2010-2015. MMWR Morb Mortal Wkly Rep 2016;65:1445-1452.
- Sehulster L, Taylor J, Hendricks K, VanEgdom M, Whitely S, Manning S. Hepatitis C outbreak linked to narcotic tampering in an ambulatory surgical center [Abstract]. Program and Abstracts of the 37th Annual Interscience Conference on Antimicrobial Agents and Chemotherapy. Washington, DC: American Society for Microbiology. 1997;293.
- 5. Schaefer MK, Perz JF. Outbreaks of infections associated with drug diversion by healthcare personnel, United States. Mayo Clinic Proceedings. 2014; 89 (6).
- 6. https://www.deadiversion.usdoj.gov/Inside.html, Accessed July 26, 2017.
- 7. https://www.hsdl.org/c/2016-national-drug-threat-assessment/, Accessed July 26, 2017.
- 8. http://www.pharmacytimes.com/contributor/erica-lindsay-pharmd-mba-jd/2016/01/the-high-cost-of-drug-diversion, Accessed July 26, 2017.
- 9. http://www.pharmacytimes.com/news/5-court-cases-involving-pharmacists, Accessed July 26, 2017.
- 10. http://chronicle.augusta.com/crime-courts-health/2016-03-08/emory-hospital-reports-large-scale-drug-thefts?v=1457457451, Accessed July 26, 2017.

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