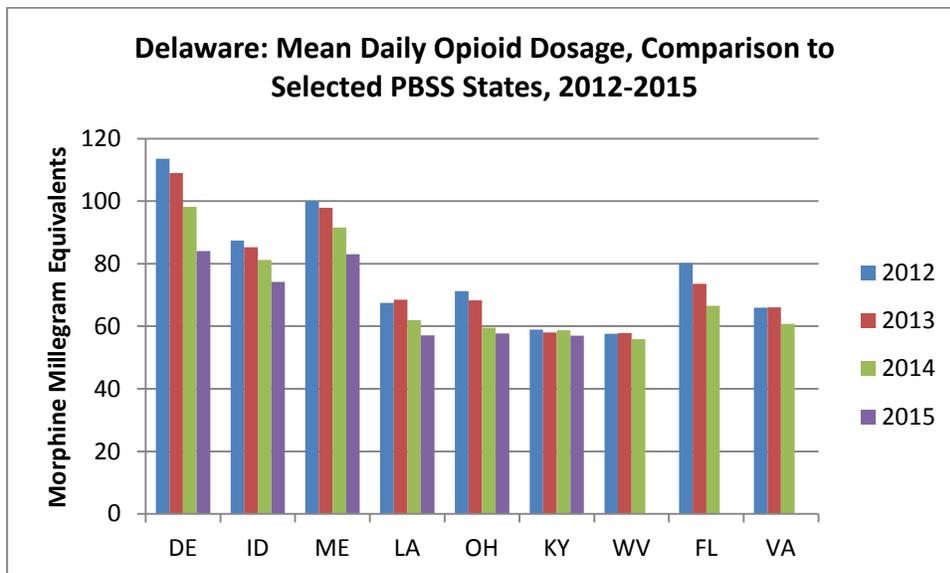


PBSS Data Brief

Patient Risk Measures for Controlled Substance Prescriptions in Delaware, 2012-2015

Summary: The overall drug overdose death rate in Delaware increased from 15.2 per 100,000 residents in 2012 to 20.9 in 2014, while the rate of overdose deaths attributable to prescription drugs rose from 7.5 to 10.7. Of the 189 drug deaths reported in 2014, 79 (42%) involved prescription opioids and 54 (29%) involved illicit opioids such as heroin.¹ Based on information from the Delaware Prescription Monitoring Program, the mean daily dosage for opioid prescriptions in Delaware declined from 2012 to 2105 (Figure 1), as did the percentage of patients receiving over 100 morphine milligram equivalents (MMEs) daily (Figure 2). Daily opioid doses over 100 MME are associated with higher risk of overdose and death.² The rate of multiple provider episodes (MPEs), a measure of risk for drug misuse, abuse and overdose (sometimes referred to as possible doctor or pharmacy shopping), also fell by over 50 percent in Delaware during this period. In 2013, the state passed a law prohibiting practitioners (excluding pharmacies) from dispensing more than a 72-hour supply of controlled substances³, while as of January of 2014, all practitioners that hold a Delaware Controlled Substance Registration are required to enroll in the Delaware PMP.⁴ These and other policies adopted by the state⁵ may have contributed to the decline in patient risk measures for controlled substances, a decline which may eventually help to reverse the recent increase in drug overdose rates.

Figure 1. Compared to other PBSS states,⁶ in 2012 Delaware patients received a higher mean daily dosage of opioids in morphine milligram equivalents (MMEs), 113.6 MME.⁷ From 2012 to 2015, the mean daily dosage in Delaware fell 26 percent, to 84.1 MME. A similar trend was observed for most PBSS comparison states (2015 annual data were not available for West Virginia, Florida and Virginia).



Delaware's PDMP

Delaware's PDMP, housed in the Office of Controlled Substances, is one of 12 PDMPs currently participating in PBSS. For further information, please visit <http://dpr.delaware.gov/boards/controlledsubstances/pmp/default.shtml>

About PBSS

The Prescription Behavior Surveillance System (PBSS) provides epidemiological analyses of de-identified data from state prescription drug monitoring programs to help target and evaluate interventions aimed at reducing prescription drug abuse and diversion. For further information, see the PBSS webpage at <http://www.pdmpexcellence.org/>.

Figure 2. Declines were observed in the percent of patients in Delaware receiving over 100 MME daily, from 19.4 percent in 2012 to 12.6 percent in 2015. Most PBSS comparison states exhibited a similar trend (2015 annual data were not available for West Virginia, Florida and Virginia).

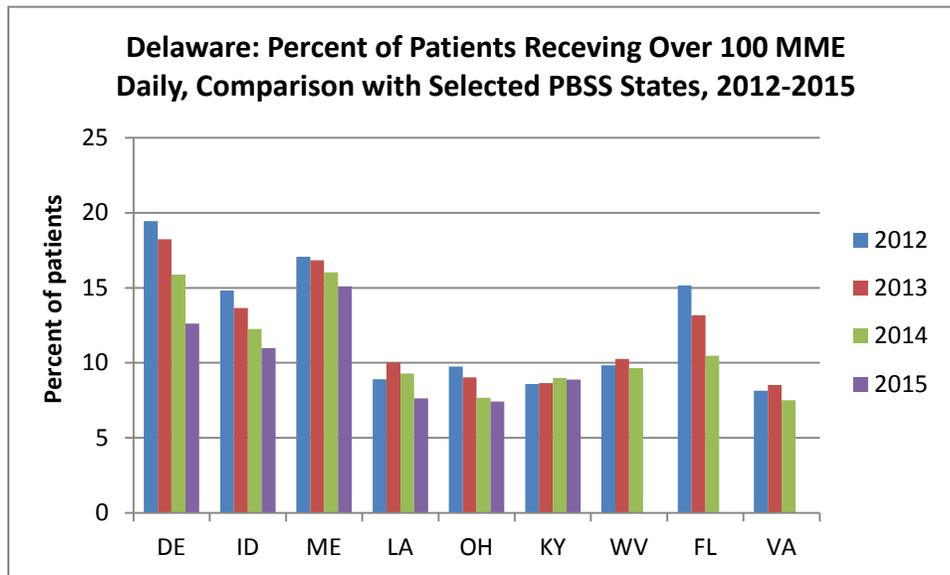
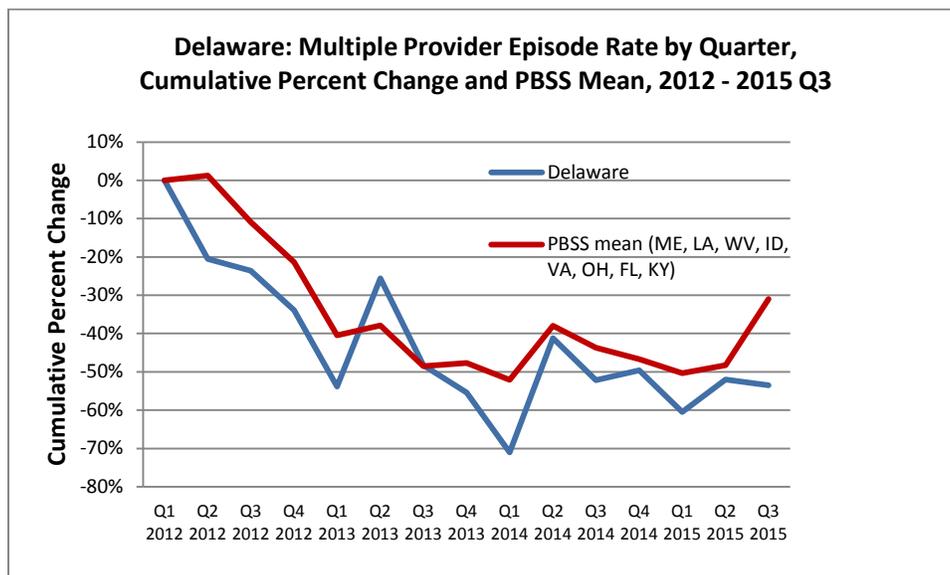


Figure 3. From the first quarter of 2012 to the third quarter of 2015, the multiple provider episode (MPE) rate in Delaware dropped by 54 percent.⁸ The mean cumulative change in the MPE rate for eight other PBSS states for which data were available for this period (Maine, Louisiana, West Virginia, Idaho, Kentucky, Virginia, Ohio and Florida) was -31 percent.



This Data Brief is a joint publication of PBSS, Brandeis University and the Delaware PMP.

Endnotes

¹ Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2014 on CDC WONDER Online Database, released 2015. Data are from the Multiple Cause of Death Files, 1999-2014, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Data are available at <http://pdmppassist.org/content/pdmp-maps-and-tables>, "U.S. Overdose Death Rates, 1999 – 2014."

² Kate M. Dunn et al., "Opioid Prescriptions for Chronic Pain and Overdose," *Annals of Internal Medicine*, 152, no. 2, (2010):85-92, doi:10.7326/0003-4819-152-2-201001190-00006. <http://www.ncbi.nlm.nih.gov/pubmed/20083827>; Gwira Baumblatt et al., "High-risk use by patients prescribed opioids for pain and its role in overdose deaths," *JAMA Internal Medicine*, 174, no. 5 (2014):796-801 doi:10.1001/jamainternmed.2013.12711. <http://www.ncbi.nlm.nih.gov/pubmed/24589873>.

³ *Del. C. 16 §4739A Practitioners*. Except for pharmacies, opioid treatment programs (also known as methadone clinics), veterinarians and persons licensed, registered, or otherwise authorized to conduct research, no practitioner shall dispense controlled substances beyond the amount deemed medically necessary for a 72-hour supply. <http://delcode.delaware.gov/title16/c047/sc03/index.shtml>

⁴ *Del. C. 16 §4798*. All prescribers who hold a registration pursuant to § 4732 of this title shall register with the Prescription Monitoring Program on or before January 1, 2014. All dispensers located in the State of Delaware that hold a registration pursuant to § 4732 of this title shall ensure that all pharmacists dispensing at the registrant's place of business are registered with the Prescription Monitoring Program on or before January 1, 2014. <http://delcode.delaware.gov/title16/c047/sc07/>

⁵ For example, starting in March 2015, all practitioners wishing to renew their DE Controlled Substance Registration (CSR) or obtain a new CSR are required to take a one hour mandatory course on Delaware law, regulation and programs on prescribing and controlled substance distribution, including information on the Delaware PPM. Queries to the PMP increased subsequently (communication from Delaware PMP administrator).

⁶ For information on the Prescription Behavior Surveillance System, see the PBSS webpage at www.pdmpexcellence.org.

⁷ Mean daily dosage is calculated for state residents in the PDMP that have an opioid prescription in a given quarter and refers to MMEs per day prescribed (total number of MMEs prescribed divided by the total number of prescription days). For definitions of PBSS measures, see <http://www.pdmpexcellence.org/sites/all/pdfs/Definitions%20of%20PBSS%20Measures.pdf>.

⁸ A multiple provider episode is defined for this report as use of 5 or more prescribers and 5 or more pharmacies within 3 months. Rates shown are calculated for those receiving a prescription for any drug in Schedules II-IV in each quarter and limited to prescriptions to state residents in the PDMP. Note that the threshold used here was assigned by PBSS for the purpose of obtaining population estimates only; an individual engaged in multiple provider episodes is not necessarily engaged in doctor/pharmacy shopping. For definitions of PBSS measures, see <http://www.pdmpexcellence.org/sites/all/pdfs/Definitions%20of%20PBSS%20Measures.pdf>.