Substance Abuse
and Mental Health Services
An Office of the
Department of Health and Human Services

Paul R. LePage, Governor   Mary C. Mayhew, Commissioner

PBSS Prescription Behavior
Surveillance System
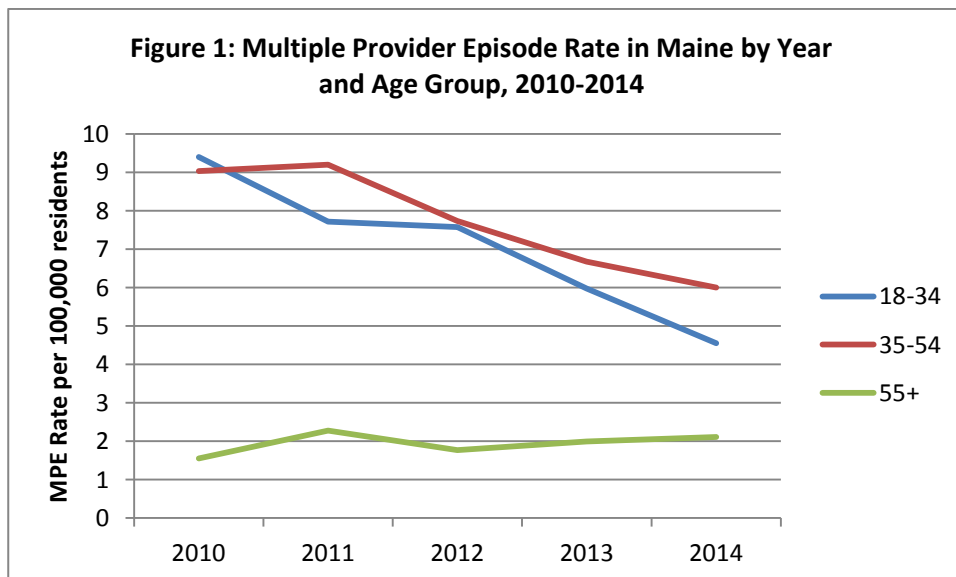Brandeis University, Waltham, MA
May 2015

PBSS Data Brief

Patient Risk Measures for Controlled Substance Prescriptions in Maine, 2010-2014

Summary: According to the Centers for Disease Control, the drug overdose death rate in Maine increased from 10.4 deaths per 100,000 residents in 2010 to 13.2 in 2013. Of the 174 overdose deaths in 2013, 106 (61%) involved prescription opioids.[1] Information from the Maine Prescription Monitoring Program was used to examine a number of patient risk measures for prescription drugs. The rate of multiple provider episodes (MPEs), a measure of risk for drug misuse, abuse and overdose (sometimes referred to as possible doctor and pharmacy shopping)[2] declined in Maine from 2010 to 2014 (Figure 1), as did the proportion of prescriptions in major drug classes involved in MPEs (Figure 2). Those aged 35-54 had the highest rate of MPEs (Figure 1), and opioids remained the drug class most frequently involved with MPEs (Figure 2). Coincident with the decline in MPE rates, the prescription rate in Maine for buprenorphine, widely used in treating opioid dependence, increased, and was well above the combined rate for nine other states participating in the Prescription Behavior Surveillance System (PBSS)[3] (Figure 3).

Figure 1: From 2010 to 2014, the annual multiple provider episode (MPE) rate[2] for patients prescribed controlled substances in schedules II-IV (shown as rate per 100,000 residents) was highest in Maine for those aged 35-54, followed closely by those aged 18-34; both rates were well above that for those aged 55 and over. Rates declined for the two younger groups, but remained relatively flat for those 55 and over. The overall MPE annual rate per 100,000 residents for all age groups combined declined from 5.0 in 2010 to 3.2 in 2014 (data not shown).

Maine's PMP

Maine's Prescription Monitoring Program, housed in the Office of Substance Abuse and Mental Health Services, is one of 11 PDMPs currently participating in PBSS. For further information, please visit www.Maine.gov/pmp

About PBSS

The Prescription Behavior Surveillance System (PBSS) provides epidem-iological 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 1: Multiple Provider Episode Rate in Maine by Year and Age Group, 2010-2014

Figure 2: From 2010 to 2014, declines were observed in the percentage of prescriptions for the three major classes of controlled substances that were involved in MPEs in Maine. Opioids remained the drug class most frequently involved in MPEs, about double the frequency for benzodiazepines and stimulants for much of this period.
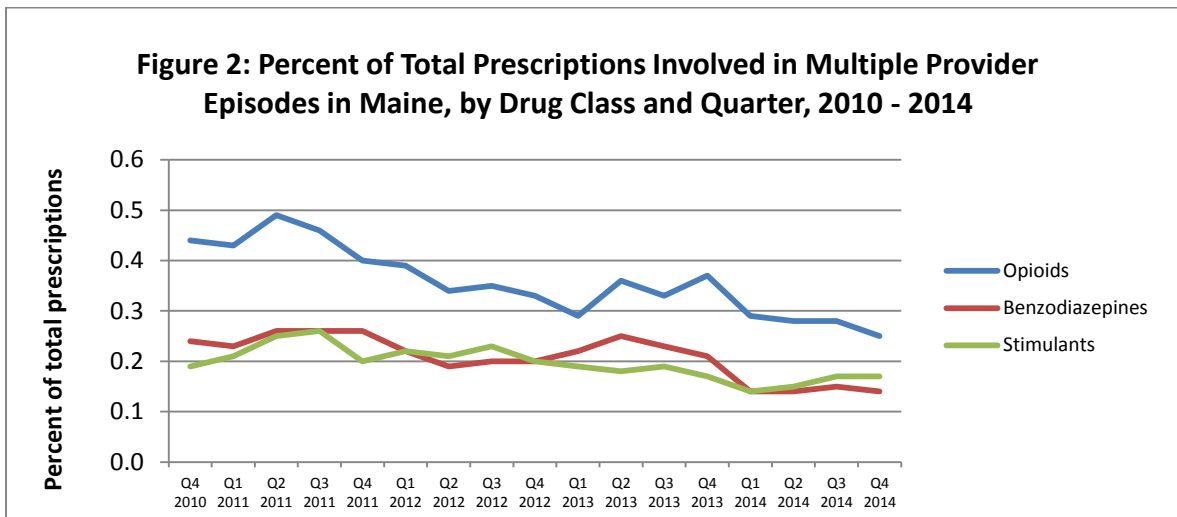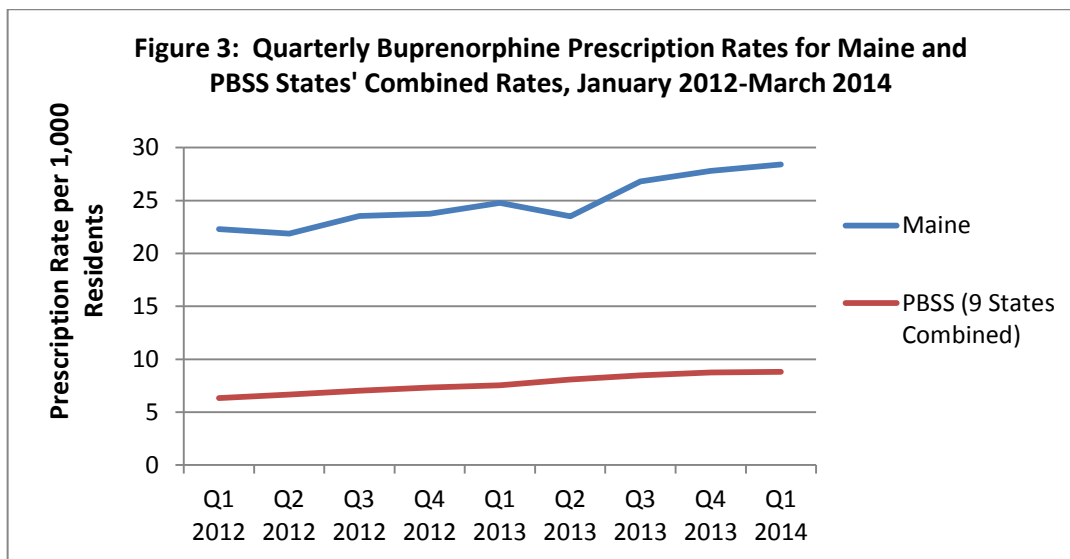

Figure 2: Percent of Total Prescriptions Involved in Multiple Provider Episodes in Maine, by Drug Class and Quarter, 2010 - 2014

Figure 3: From 2012 to the first quarter of 2014, the prescription rate in Maine for buprenorphine, widely used in treating opioid dependence, rose from 22.3 per 1,000 residents to 28.4. The rate in Maine during most of this period remained over three times the combined rate for nine other states participating in PBSS.[4] No other opioids showed increases in prescription rates of this magnitude during this period in Maine, and the trend for opioids overall in Maine was a decrease in prescription rates (data not shown).

Figure 3: Quarterly Buprenorphine Prescription Rates for Maine and PBSS States' Combined Rates, January 2012-March 2014

This Data Brief is a joint publication of PBSS, Brandeis University and the Maine PMP, Office of Substance Abuse and Mental Health Services. It can be accessed online at http://www.pdmpexcellence.org/content/data-briefs and at http://www.maine.gov/dhhs/samhs/osa/data/pmp/reports.htm.

Endnotes

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[1] Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2013 on CDC WONDER Online Database, released 2015. Accessed at http://wonder.cdc.gov/mcdicd10.html on Apr 6, 2015.

[2] 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 are calculated by drug class for those receiving a prescription in the drug class and are averaged over 4 quarters to obtain an annual rate. 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.

[3] PBSS states included are CA, DE, FL, ID, LA, OH, WV, WA and KY. PBSS states, and therefore, their combined prescription rates, are not necessarily representative of the U.S. as a whole.

[4] The Maine buprenorphine prescription rate was 2nd highest among PBSS states, averaging 25 per 1,000 residents over this period. The average rates in the other PBSS states ranged widely, from 3 to 26 per 1,000 residents.