

DEFINITIONS OF PBSS MEASURES

SECTION 1: PRESCRIPTION RATES

1.1 Prescription rates by quarter and year, by drug class and sex

- Reported by quarter and year per 1,000 state residents. Limited to prescriptions to state residents in state's PDMP.

1.2 Prescription rates by quarter and year, by drug class and age group

- Reported by quarter and year per 1,000 state residents. Limited to prescriptions to state residents in state's PDMP.

1.3 Prescription rates by year, by drug class, sex and age group

- Reported by quarter and year per 1,000 state residents. Limited to prescriptions to state residents in state's PDMP.

1.4 Prescription rates by quarter and year, by major opioid drug category

- Reported by quarter and year per 1,000 state residents. Limited to prescriptions to state residents in state's PDMP.

1.5 Prescription rates by quarter and year, by major stimulant drug category

- Reported by quarter and year per 1,000 state residents. Limited to prescriptions to state residents in state's PDMP.
- Includes amphetamine-dextroamphetamine.

1.6 Prescription rates by quarter and year, by major benzodiazepine drug category

- Reported by quarter and year per 1,000 state residents. Limited to prescriptions to state residents in state's PDMP.

1.7 Prescription rates by quarter and year, by miscellaneous drug category

- Reported by quarter and year per 1,000 state residents. Limited to prescriptions to state residents in state's PDMP.

SECTION 2: DAILY DOSAGES

2.1 Mean daily dosage per patient in morphine milligram equivalents (MMEs) by quarter and year, by major opioid drug category

- Mean daily dosage is calculated for subjects that have a 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).
- Limited to prescriptions to state residents in state's PDMP.

- The % of patients receiving >100 MMEs daily refers to the % of patients with > 100 MMEs per day prescribed for all drugs used by the patient, calculated using the average daily MMEs over the three month period.

SECTION 3: OVERLAPPING PRESCRIPTIONS

3.1 Percentage of prescribed days overlapping with another prescription from the same drug class, by quarter and year

- Calculated as the number of days with more than 1 prescription in the same drug class divided by the total number of prescription days for that drug class per quarter. Thus, a day with 2 overlapping prescriptions is counted the same as one with 3 overlapping prescriptions. The total number of prescription days for a drug class only includes any day with 1 or more prescriptions.
- Limited to prescriptions to state residents in state's PDMP.

3.2 Percentage of days with overlapping prescriptions across opioid and benzodiazepine drug classes and across opioid release-forms, by quarter and year

- Long acting includes both naturally long acting drugs such as methadone and drugs elsewhere labelled as extended-release.
- Limited to prescriptions to state residents in state's PDMP.
- Percentage of all opioid days prescribed overlapping with a benzodiazepine prescription calculated as the number of days with both an opioid and benzodiazepine prescription divided by the total number of opioid rx days.
- Percentage of prescribed days for Long Acting (LA)/Extended Release (ER) formulations that overlap with Short Acting (SA) formulations. Denominator is the total days of LA/ER prescriptions.
- Percentage of prescribed days for LA/ER formulations that overlap with other LA/ER formulations. Denominator is the total days of LA/ER prescriptions.
- Percentage of prescribed days for SA formulations that overlap with other SA formulations. Denominator is the total days of SA prescriptions. The denominator of total prescription days is calculated for each measure to include only any day with one or more prescription.

SECTION 4: MULTIPLE PROVIDER EPISODE RATES

4.1 Multiple provider episode rates by quarter and year, by drug schedule and age group

- Multiple provider episode rate is defined as use of 5 or more prescribers and 5 or more pharmacies within 3 months and is based on the current 3 months. The controlled substance Schedule II category includes all schedule II drugs. The Schedule II and III category includes Schedule II or III drugs, and Schedule II, III, IV includes Schedule II, III or IV drugs.

- Reported by quarter and year per 100,000 state residents. The annual rate is calculated as the average quarterly rate for the specified year. Limited to prescriptions to state residents in state's PDMP.

4.2 Multiple provider episode rates by quarter and year, by drug class and age group

- Multiple provider episode is defined as use of 5 or more prescribers and 5 or more pharmacies within 3 months and is based on the current 3 months. Rates are calculated by drug class for those receiving a prescription in the drug class.
- Reported by quarter and year per 100,000 state residents. The annual rate is calculated as the average quarterly rate for the specified year. Limited to prescriptions to state residents in state's PDMP.

4.3 Percentage of total prescriptions for a type of opioid that were involved in a multiple provider episode, by quarter and year

- Multiple provider episode is defined as use of 5 or more prescribers and 5 or more pharmacies within 3 months and is based on the current 3 months. When a prescription for a type of opioid was involved in any MPE, that prescription was counted as being involved.
- Limited to prescriptions to state residents in state's PDMP.

4.4 Percentage of total prescriptions for a type of stimulant that were involved in a multiple provider episode, by quarter and year

- Multiple provider episode is defined as use of 5 or more prescribers and 5 or more pharmacies within 3 months and is based on the current 3 months.
- Limited to prescriptions to state residents in state's PDMP.
- Includes amphetamine-dextroamphetamine.

4.5 Percentage of total prescriptions for a type of benzodiazepine that were involved in a multiple provider episode, by quarter and year

- Multiple provider episode is defined as use of 5 or more prescribers and 5 or more pharmacies within 3 months and is based on the current 3 months.
- Limited to prescriptions to state residents in state's PDMP.

4.6 Percentage of total prescriptions for a specific drug that were involved in a multiple provider episode, by quarter and year

- Multiple provider episode is defined as use of 5 or more prescribers and 5 or more pharmacies within 3 months and is based on the current 3 months.
- Limited to prescriptions to state residents in state's PDMP.

4.7 Percentage of patients with oxycodone and alprazolam in combination who engaged in a multiple provider episode, by quarter and year

- Having a drug combination in the previous 3 months means being dispensed both drugs at any time during the 3 months.

- Multiple provider episode is defined as use of 5 or more prescribers and 5 or more pharmacies within 3 months and is based on the current 3 months.
- Limited to prescriptions to state residents in state's PDMP.

4.8 Multiple provider episode rates by half-year and year, by drug schedule and age group

- Multiple provider episode rate is defined as use of 5 or more prescribers and 5 or more pharmacies within 6 months and is based on the current 6 months. The controlled substance Schedule II category includes all schedule II drugs. The Schedule II and III category includes Schedule II or III drugs, and Schedule II, III, IV includes Schedule II, III or IV drugs.
- Reported by half-year and year per 100,000 state residents. The annual rate is calculated as the average half-year rate for the specified year. Limited to prescriptions to state residents in state's PDMP.

4.9 Multiple provider episode rates by half-year and year, by drug class and age group

- Multiple provider episode is defined as use of 5 or more prescribers and 5 or more pharmacies within 6 months and is based on the current 6 months. Rates are calculated by drug class for those receiving a prescription in the drug class.
- Reported by half-year and year per 100,000 state residents. The annual rate is calculated as the average half-year rate for the specified year. Limited to prescriptions to state residents in state's PDMP.

4.10 Number and percentage of unique patients with controlled substance prescriptions (Rxs) paid for by Medicaid and by cash, by quarter and by year

- The number of unique patients with controlled substance prescriptions paid for by Medicaid and by cash which were (i) less than 10 days apart and within the same quarter, (ii) for the same drug, (iii) from a different prescriber, and (iv) where the number of days supply for the earlier prescription was greater than the number of days between the prescription fill dates. The percentage of unique patients is defined as the number of unique patients who meet the criteria above divided by the number of unique patients with at least one prescription paid for by Medicaid in the quarter.
- Reported by quarter and year. The annual rate is calculated as the average quarterly rate for the specified year. Limited to prescriptions to state residents in state's PDMP.

SECTION 5: PILL MILL MEASURES

5.1 Mean number per day and percentage of Schedule II-IV controlled substance (CS) prescriptions (Rxs) by prescriber decile, based on daily prescribing counts, by quarter and year

- Limited to in-state prescribers of the drug type(s) shown in this table. Includes out-of-state-residents. Based on the total number of days in a quarter.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.

- Mean refers to the mean number of controlled substances prescriptions written per day per prescriber percentile rank. % refers to the percentage of all controlled substance prescriptions written per day per prescriber percentile rank.

5.2 Mean number per day and percentage of opioid prescriptions (Rxs) by prescriber decile, based on daily prescribing counts, by quarter and year

- Limited to in-state prescribers of the drug type(s) shown in this table. Includes out-of-state-residents. Based on the total number of days in a quarter.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.
- Mean refers to the mean number of opioid prescriptions written per day per prescriber percentile rank. % refers to the percentage of all opioid prescriptions written per day per prescriber percentile rank.

5.3 Mean number per day and percentage of prescriptions (Rxs) for stimulants by prescriber decile, based on daily prescribing counts, by quarter and year

- Limited to in-state prescribers of the drug type(s) shown in this table. Includes out-of-state-residents. Based on the total number of days in a quarter.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.
- Mean refers to the mean number of stimulant prescriptions written per day per prescriber percentile rank. % refers to the percentage of all stimulant prescriptions written per day per prescriber percentile rank.

5.4 Mean number per day and percentage of prescriptions (Rxs) for benzodiazepines by prescriber decile, based on daily prescribing counts, by quarter and year

- Limited to in-state prescribers of the drug type(s) shown in this table. Includes out-of-state-residents. Based on the total number of days in a quarter.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.
- Mean refers to the mean number of benzodiazepine prescriptions written per day per prescriber percentile rank. % refers to the percentage of all benzodiazepine prescriptions written per day per prescriber percentile rank.

5.5 Mean number per day and percentage of prescriptions (Rxs) for carisoprodol by prescriber decile, based on daily prescribing counts, by quarter and year

- Limited to in-state prescribers of the drug type(s) shown in this table. Includes out-of-state-residents. Based on the total number of days in a quarter.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.
- Mean refers to the mean number of prescriptions for specified drug written per day per prescriber percentile rank. % refers to the percentage of all prescriptions for specified drug written per day per prescriber percentile rank.

5.6 Mean number per day and percentage of prescriptions (Rxs) for zolpidem by prescriber decile, based on daily prescribing counts, by quarter and year

- Limited to in-state prescribers of the drug type(s) shown in this table. Includes out-of-state-residents. Based on the total number of days in a quarter.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.
- Mean refers to the mean number of prescriptions for specified drug written per day per prescriber percentile rank. % refers to the percentage of all prescriptions for specified drug written per day per prescriber percentile rank.

5.7 Mean daily dosage for opioids in MMEs by prescriber decile, based on daily prescribing counts, by quarter and year

- Limited to in-state prescribers of the drug type(s) shown in this table. Includes out-of-state-residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.

5.8 Mean distance in miles from patient to prescriber by prescriber decile, based on mean distance in miles from patient to prescriber, for CS II-IV prescriptions, by quarter and year

- Limited to in-state prescribers of the drug type(s) shown in this table. Includes out-of-state-residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.

5.9 Mean distance in miles from patient to prescriber by prescriber decile, based on mean distance in miles from patient to prescriber, for opioid prescriptions, by quarter and year

- Limited to in-state prescribers of the drug type(s) shown in this table. Includes out-of-state-residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.

5.10 Percentage of patients with a multiple provider episode among all patients seen, by prescriber decile, based on mean distance in miles from patient to prescriber, by quarter and year

- Multiple provider episode is defined as use of 5 or more prescribers and 5 or more pharmacies within 3 months and is based on the current 3 months.
- Limited to in-state prescribers of the drug type(s) shown in this table. Includes out-of-state-residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.

5.11 Percentage of all Schedule II-IV controlled substance (CS) prescriptions (Rxs) and all opioid Rxs by payment type and percentage of prescribers with 10% or more CS Rxs and opioid Rxs paid for in cash, by quarter and year

- Limited to in-state prescribers of the drug type(s) shown in this table. Includes out-of-state-residents. This table is populated only if the PDMP collects source of payment. Other payment types not shown; thus, totals may not sum to 100%.

SECTION 6: LONG-ACTING / EXTENDED RELEASE OPIOID MEASURES

6.1 Percentage of patients prescribed long-acting/extended release (LA/ER) opioids who were opioid-naïve and mean daily dosage per LA/ER prescription, by quarter and year

- Defined as one with no opioid prescriptions in the previous 60 days.
- Limited to prescriptions to state residents in state's PDMP.
- Calculated as the number of opioid-naïve patients receiving at least 1 LA/ER opioid Rx per quarter, divided by the total number of patients who received an LA/ER opioid Rx per quarter and multiplied by 100.
- Calculated as the average daily dosage in MMEs per LA/ER opioid Rx to opioid-naïve patients as defined above.

SECTION 7: PHARMACY-BASED MEASURES

7.1 Mean number per day and percentage of Schedule II-IV controlled substance (CS) prescriptions (Rxs) dispensed, by pharmacy decile, based on daily dispensing counts, by quarter and year

- Limited to in-state pharmacies. Includes out-of-state residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.
- Mean refers to the mean number of controlled substances prescriptions dispensed per day per pharmacy percentile rank. % refers to the percentage of all controlled substance prescriptions dispensed per day per pharmacy percentile rank.

7.2 Mean number per day and percentage of opioid prescriptions (Rxs) dispensed, by pharmacy decile, based on daily dispensing counts, by quarter and year

- Limited to in-state pharmacies. Includes out-of-state residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.
- Mean refers to the mean number of opioid prescriptions dispensed per day per pharmacy percentile rank. % refers to the percentage of all opioid prescriptions dispensed per day per pharmacy percentile rank.

7.3 Mean number per day and percentage of prescriptions (Rxs) for stimulants dispensed, by pharmacy decile, based on daily dispensing counts, by quarter and year

- Limited to in-state pharmacies. Includes out-of-state residents.

- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.
- Mean refers to the mean number of stimulant prescriptions dispensed per day per pharmacy percentile rank. % refers to the percentage of all stimulant prescriptions dispensed per day per pharmacy percentile rank.

7.4 Mean number per day and percentage of prescriptions (Rxs) for benzodiazepines dispensed, by pharmacy decile, based on daily dispensing counts, by quarter and year

- Limited to in-state pharmacies. Includes out-of-state residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.
- Mean refers to the mean number of benzodiazepine prescriptions dispensed per day per pharmacy percentile rank. % refers to the percentage of all benzodiazepine prescriptions dispensed per day per pharmacy percentile rank.

7.5 Mean number per day and percentage of prescriptions (Rxs) for carisoprodol dispensed, by pharmacy decile, based on daily dispensing counts, by quarter and year

- Limited to in-state pharmacies. Includes out-of-state residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.
- Mean refers to the mean number of prescriptions for specified drug dispensed per day per pharmacy percentile rank. % refers to the percentage of all prescriptions for specified drug dispensed per day per pharmacy percentile rank.

7.6 Mean number per day and percentage of prescriptions (Rxs) for zolpidem dispensed, by pharmacy decile, based on daily dispensing counts, by quarter and year

- Limited to in-state pharmacies. Includes out-of-state residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.
- Mean refers to the mean number of prescriptions for specified drug dispensed per day per pharmacy percentile rank. % refers to the percentage of all prescriptions for specified drug dispensed per day per pharmacy percentile rank.

7.7 Mean daily dosage for opioids in MMEs by pharmacy decile, based on daily dispensing counts, by quarter and year

- Limited to in-state pharmacies. Includes out-of-state residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.

7.8 Mean distance in miles from patient to pharmacy by pharmacy decile, based on mean distance in miles from patient to pharmacy, for all CS-II-IV prescriptions dispensed, by quarter and year

- Limited to in-state pharmacies. Includes out-of-state residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.

7.9 Mean distance in miles from patient to pharmacy by pharmacy decile, based on mean distance in miles from patient to pharmacy, for opioid prescriptions dispensed, by quarter and year

- Limited to in-state pharmacies. Includes out-of-state residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.

7.10 Percentage of patients with a multiple provider episode among all patients dispensed to, by pharmacy decile, based on mean distance in miles from patient to pharmacy, by quarter and year

- Multiple provider episode is defined as use of 5 or more prescribers and 5 or more pharmacies within 3 months and is based on the current 3 months.
- Limited to in-state pharmacies. Includes out-of-state residents.
- Tied values that overlapped deciles were randomly assigned to the higher or lower decile so that all deciles are equal-sized.

7.11 Percentage of all Schedule II-IV controlled substance (CS) prescriptions (Rxs) and all opioid Rxs by payment type and percentage of pharmacies with 10% or more CS Rxs and opioid Rxs paid for in cash, by quarter and year

- Limited to in-state pharmacies. Includes out-of-state residents.
- This table is populated only if the PDMP collects source of payment. Other payment types not shown; thus, totals may not sum to 100%.
- The number of pharmacies that filled CS Rxs paid for by Medicaid and by cash is defined as the number of pharmacies which filled CS Rxs paid for by Medicaid and by cash for the same patient where the Rxs were: (i) less than 10 days apart and within the same quarter, (ii) for the same drug, (iii) from a different prescriber, and (iv) where the number of days supply for the earlier prescription was greater than the number of days between the prescription fill dates.
- The percentage of pharmacies that filled CS Rxs paid for by Medicaid and by cash is defined as the percentage of all pharmacies who met the criteria above.

APPENDIX

A.1 Annual estimates of state resident population, by sex and age groups

Population estimates as of July 1 of the specified year. Population estimates for 2012 were not available as of 5/29/2013. The previous year's population was used when population estimates for a given year are not yet available. Source: Table 2. Annual Estimates of the Resident Population by Sex and Age for Maine: April 1, 2010 to July 1, 2011 (SC-EST2011-02-12), U.S. Census Bureau, Population Division. Release Date: May 2012.