Methodology for Comparative Analysis:

Co-Prescribing Patterns for Benzodiazepines with Opioids and Average Morphine Milligram Equivalents (MME)

Consistent with section 6065 of the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities (SUPPORT) Act (P.L. 115-271), this methodology is intended to identify Part D prescribers who are outliers as compared to their peers for the percent of their patients concurrently prescribed benzodiazepines and opioids, and for the average MME dose prescribed to those patients.

Analysis Criteria

- Methodology analyzed 12 months of Medicare Part D claims data from July 1, 2021 – June 30, 2022 using Prescription Drug Event (PDE) files.
- Analysis identified beneficiaries with an opioid PDE who received both opioids and benzodiazepines from the same prescriber for a consecutive 30 days.
- Every prescriber was associated with a total count of beneficiaries who were co-prescribed opioids and benzodiazepines.
- Analysis excludes a beneficiary who:
  - Was not enrolled in Part D between January 2021 – June 2021, or
  - Had a diagnosis of cancer or sickle cell disease between July 2020 – June 2022, or
  - Was enrolled in long-term care between July 2021 – June 2022, or
  - Was enrolled in hospice care between July 2020 – June 2022
- Analysis excludes a prescriber that:
  - Had less than 5 beneficiaries who were co-prescribed opioids and benzodiazepines, or
  - Had less than 10 total beneficiaries who received opioids, or
  - Had less than 10 peers within their specialty and state, or
  - Prescribers who are the subject of an investigation by the Centers for Medicare & Medicaid Services or the Inspector General of the Department of Health and Human Services.
- All buprenorphine products were excluded from the analysis.
- Only opioid National Drug Codes (NDCs) that were associated with a MME conversion factor were included in the analysis.

Comparative Analysis

- MMEs per day were calculated for the opioids received by Medicare beneficiaries for each prescriber.
- The MME was calculated based upon the strength of the drug prescribed, the number of doses dispensed, the days’ supply issued, and the respective conversion factor for the opioid prescribed. The conversion factors were derived
from the Centers for Disease Control and Prevention’s (CDC) 2020 Opioid NDC and Oral MME Conversion File.\textsuperscript{1}

- Prescribers were compared to their peers within the same specialty as identified through the National Plan and Provider Enumeration System (NPPES) and in the same state. Outliers were identified using two metrics:
  - Percentage of beneficiaries who were co-prescribed opioids and benzodiazepines
  - Average Daily MME prescribed to those patients
- Outlier prescribers were identified based upon the percentage of beneficiaries who were co-prescribed opioid and benzodiazepines greater than 90\textsuperscript{th} percentile and an average daily MME greater than 90\textsuperscript{th} percentile prescribed to those patients as compared to their peers.

\textsuperscript{1} https://www.cdc.gov/opioids/data-resources/ (Accessed on November 3, 2022).