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

This methodology is intended to identify prescribers who are outliers as compared to their peers for the percent of their patients prescribed benzodiazepines and opioids concurrently, 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, 2018 – June 30, 2019 using Prescription Drug Event (PDE) files.
- Analysis identified beneficiaries with an opioid PDE who received both opioid and benzodiazepine from the same prescriber for a consecutive 30 days.
- Every prescriber was associated with a total count of beneficiaries who were co-prescribed opioids with benzodiazepines.
- Analysis excludes a beneficiary who:
  - Was not enrolled in Part D between January 2018 – June 2018, or
  - Had a diagnosis of cancer or sickle cell disease between July 2017 – June 2019, or
  - Was enrolled in hospice care between July 2017 – June 2019
- 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’s (CDC) 2018 oral MME conversion factors.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:
  o Percentage of beneficiaries who were co-prescribed opioid and benzodiazepines
  o 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 90th percentile and an average daily MME greater than 90th percentile prescribed to those patients as compared to their peers.