

Preliminary Medicare Quarterly Part D Spending by Drug Methodology

The Preliminary Medicare Quarterly Part D Spending by Drug dataset presents spending information for Medicare Part D drugs – drugs patients generally administer themselves and that are paid through the Medicare Part D Prescription Drug program. This document describes the methodology CMS uses to create the Medicare Quarterly Part D Spending by Drug dataset, including data sources, aggregation processes, definitions for metrics, and limitations.

Data Sources and Aggregation

The primary data source for this dataset is Part D drug information pulled from the Part D Prescription Drug Event (PDE) data. PDE data are available for a subset of Medicare beneficiaries who choose to enroll in Part D (approximately 82% of Medicare beneficiaries). In an effort to deliver more timely information, starting July 2026, PDE data is extracted three months after the latest quarter reporting period ends, capturing over 99% of records. Generally, final-action claims are provided to researchers when they reach 12 months maturity, making them more stable for research and policy use. Users accessing less mature data should be aware of its limitations; within three months, services are noted but details like payment are not considered final. Although, based on recent analysis¹ most PDE records (84%) are considered fully mature 3 months after service, rising to 88% at six months maturity.

We summarized Medicare Part D PDE data by drug by linking National Drug Codes (NDCs) available in the PDE data to the First Databank MedKnowledgeTM database. A small proportion of PDE records with NDCs that do not match to this drug information database are excluded from all summarizations. Then, we aggregated across all strengths, dosage forms, and routes of administration to the drug brand name, generic name, and manufacturer. All Part D organization and plan types are included. We excluded over-the-counter drugs in the PDE data and drugs with fewer than 11 claims² in the most recent year.

Drug Metrics

The Medicare Quarterly Part D Spending by Drug dataset focuses on utilization of and total spending for Medicare Part D drugs. The dataset also includes consumer-friendly information on drug uses and clinical indications.

Utilization metrics include the total number of beneficiaries and claims.

¹ <https://resdac.org/articles/understanding-cms-data-maturity>

² Drugs defined at the brand name, generic name, and manufacturer level.

Drug spending metrics are based on the gross drug cost, which includes ingredient cost, dispensing fees, sales tax, and applicable vaccine administration fees. Medicare Part D drug spending represents total spending for the prescription claim, including amounts paid by the Medicare Part D plan and beneficiary payments. The Medicare Part D spending metrics do not reflect any manufacturers' rebates or other price concessions as CMS is prohibited from publicly disclosing such information. However, high-level [rebate summary](#) information is available for 2014.

CMS is obligated by the federal Privacy Act, 5 U.S.C. Section. 552a and the HIPAA Privacy Rule, 45 C.F.R Parts 160 and 164, to protect the privacy of individual beneficiaries and other persons. All direct identifiers have been removed from this data file.

Limitations

While this dataset is similar to the [annual Medicare Part D Spending by Drug dataset](#), the quarterly dataset reports preliminary data. This data is updated quarterly and may change with each new release due to claims lag. Once a full year of data is available with a sufficient run-out period, it will transition from the preliminary quarterly dataset to the annual dataset. Due to the preliminary nature of the quarterly dataset, we advise using caution when comparing between the annual and quarterly datasets. Less mature data has limitations; researchers can learn about the limitations of less mature data at www.resdac.org/understanding-cms-data-maturity.