Medicare Part D Prescribers Datasets:
Technical Specifications

August, 2021

Prepared by:
The Centers for Medicare & Medicaid Services,
Office of Enterprise Data and Analytics

Part D Prescriber PUF Technical Specifications

This programming specifications appendix provides users with additional information about how the Part D Prescribers Datasets were developed. It describes the source data used in creating the file, including any supplemental information beyond the Medicare Part D event data. This document also describes the step-by-step methodology CMS used to create the Part D Prescriber Dataset.

Source Data:

1. *CMS Part D Event (PDE) Calendar Year Data* available at: http://www.resdac.org/cms-data/files/pde.

2. *Medicare Part D Drug Characteristics Data* available at: https://www.resdac.org/cms-data/files/part-d-drug-characteristics-file-0.

3. *Master Beneficiary Summary Calendar Year Data* available at: https://www.resdac.org/cms-data/files/mbsf-base.

4. *CMS National Plan and Provider Enumeration System (NPPES) Name and Address data* available at: http://download.cms.gov/nppes/NPI_Files.html. The most current NPPES name and address information for active NPIs is in the "NPPES Data Dissemination (month, DD, YYYY)" full NPI replacement file.

5. *CMS Carrier Calendar Year Data* see: https://www.resdac.org/cms-data/files/carrier-ffs.

6. *CMS Durable Medical Equipment, Prosthetic, Orthotic and Other Supplies (DMEPOS) Calendar Year Data* see: http://www.resdac.org/cms-data/dme-ffs.

7. *CMS Provider Specialty Descriptions* available at: https://data.cms.gov/Medicare-Enrollment/CROSSWALK-MEDICARE-PROVIDER-SUPPLIER-to-HEALTHCARE/j75i-rw8y. The provider specialty crosswalk is titled "Taxonomy Crosswalk (Updated MM-DD-YYY)".

8. *National Uniform Claim Committee (NUCC) taxonomy code set* available at: http://www.nucc.org/index.php?option=com_content&view=article&id=107&Itemid=132.

Methodology:

Step 1: Starting with the CMS PDE Calendar Year Data (which includes Part D Drug Characteristics Data pre-merged when requested together), exclude over-the-counter drugs from this file using the following criteria:

- Drug Coverage Status Code (DRCVSTCD) **NOT** = "O" *(To exclude over-the-counter drugs)*

Step 2: Create the following variables (and limit the file to only these variables) from CMS PDE Calendar Year Data from Step 1:

- **NPI** = CCW Prescriber ID (CCW_PRSCRBR_ID)
- **Beneficiary_id** = Encrypted CCW Beneficiary ID (BENE_ID)
- **drug_name** = Brand Name (BN)
- **generic_name** = Generic Name (GNN)
- **total_day_supply** = Days Supply (DAYSSPLY)
- **total_drug_cost** = Gross Drug Cost (TOTALCST)
- Derive **total_30_day_fill_count = total_day_supply** / 30; when **total_30_day_fill_count** < 1 then set **total_30_day_fill_count** = 1; when **total_30_day_fill_count** > 12 then set **total_30_day_fill_count** = 12

Step 3: Merge output from Step 2 (retaining all data if matched) using **Beneficiary_id** with the Master Beneficiary Summary Calendar Year Data using **Encrypted CCW Beneficiary ID (BENE_ID)** and attach the following:

- Derive **AgeGE65** = 1 when **Age at End of Reference** Year (AGE) > 64; otherwise **AGEGE65** = 0
- Derive **PartD_indicator** = value of "PDP" when first character of any of the 12 monthly **Encrypted Contract ID (CNTRCT<month>)** is equal to a value of "E", "S", or "X"; otherwise **PartD_indicator** = value of "MAPD" when first character of any of the 12 monthly **Encrypted Contract ID** (**CNTRCT<month>**) is equal to a value of "H", or "R"; otherwise drop the record (not Part D enrolled)

Step 4: Summarize the following variables from the output from Step 3 to the **NPI**, **drug_name**, and **generic_name**:

- **bene_count** = distinct count of beneficiary_id
- **total_claim_count** = sum of 1 (represents count of prescription drug events)
- **total_day_supply** = sum of total_day_supply
- **total_drug_cost** = sum of total_drug_cost
- **bene_count_ge65** = distinct count of beneficiary_id when AgeGE65 = 1
- **total_claim_count_ge65** = sum of 1 (represents count of prescription drug events) when AgeGE65 = 1
- **total_day_supply_ge65** = sum of total_day_supply when AgeGE65 = 1
- **total_drug_cost_ge65** = sum of total_drug_cost when AgeGE65 = 1
- **total_30_day_fill_count_ge65** = sum of total_30_day_fill_count when AgeGE65 = 1

Step 5: Merge output from Step 4 (retaining all data if matched) using **NPI** with the NPPES Name and Address Data using **NPI** and attach the following:

- **nppes_provider_last_org_name** = Provider Organization Name (Legal Business Name) when Entity Type Code = "O"; else Provider Last Name (Legal Name) when Entity Type Code = "I"
- **nppes_provider_first_name** = Provider First Name

- **nppes_provider_city** = Provider Business Practice Location Address City Name
- **nppes_provider_state** = Provider Business Practice Location Address State Name
- Derive **provider_taxonomy_code** = Taxonomy Code when associated Primary Taxonomy = "Y"

Step 6: Derive a single **specialty_description** and **description_flag** based on the hierarchy described below.

    a. CMS Carrier Calendar data:

        o Extract the following variables from the CMS Carrier Calendar Year Data
- **NPI** = Carrier Line Performing NPI Number (PRFNPI)
- **Provider_specialty_code** = Line HCFA Provider Specialty Code (HCFASPCL)
- **line_srvc_cnt** = Line Service Count (SRVC_CNT)

        o Derive a single **provider_specialty_code** for each **NPI** record based on the **provider_specialty_code** associated with the maximum **line_srvc_cnt**

        o Derive **specialty_description** = "Medicare Provider/Supplier Type Description" from CMS Provider Specialty Descriptions using **provider_specialty_code**

    b. CMS DMEPOS Calendar Year data:

        o Extract the following variables from the CMS DMEPOS Calendar Data
- **NPI =** DMERC Line Item Supplier NPI Number (SUP_NPI)
- **Provider_specialty_code =** Line HCFA Provider Specialty Code (HCFASPCL)
- **line_srvc_cnt = Line Service Count (SRVC_CNT)**

        o Derive a single **provider_specialty_code** for each **NPI** record based on the **provider_specialty_code** associated with the maximum **line_srvc_cnt**

        o Derive **specialty_description** = "Medicare Provider/Supplier Type Description" from CMS Provider Specialty Descriptions using **provider_specialty_code**

    c. Merge output from Step 6 a. using **NPI** with the output from Step 6 b. using **NPI.**

        o Derive a single **NPI** with **specialty_description =** specialty_description from Step 6 a.**;** otherwise **specialty_description** = specialty_description from Step 6 b.

        o Set **description_flag** = "S"

Step 7: Merge the **NPI** from the output from Step 5 (retaining all records) with the **NPI** from the output from Step 6 c.:

- If **NPI** from the output from Step 5 = **NPI** from the output from Step 6 c. then attach **specialty_description** and **description_flag**; otherwise

- When **provider_taxonomy_code** crosswalks to a single "Medicare Provider/Supplier Type Description" from CMS Provider Specialty Descriptions then derive **specialty_description** = "Medicare Provider/Supplier Type Description" and **description_flag** = "S"; otherwise

- Derive **specialty_description** = "Classification" from the NUCC Taxonomy Set using provider_taxonomy_code and set **description_flag** = "T"