



Medicare Fee-For-Service  
Provider Utilization & Payment Data  
Physician and Other Supplier  
Public Use File:  
Technical Specifications

*March, 2025*

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## Physician and Other Supplier File Technical Specifications

This technical appendix provides users with additional information about how the Physician and Other Supplier Public Use File (PUF) was developed. It describes the source data used in creating the file, including any supplemental information beyond the Medicare fee-for-service claims. This document also describes the step-by-step methodology CMS used to create the Physician and Other Supplier PUF.

### **Source Data:**

1. ***CMS Carrier Calendar Year Data*** see: <https://www.resdac.org/cms-data/files/carrier-ffs>
2. ***CMS Provider Specialty Descriptions*** available at: <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/MedicareProviderSupEnroll/Taxonomy.html>. The provider specialty crosswalk is titled “Taxonomy Crosswalk (Updated MM-DD-YYYY)”.
3. ***CMS Health Care Common Procedure Coding System (HCPCS) Level II Descriptions*** available at: <https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/Alpha-Numeric-HCPCS.html>. The HCPCS Level II crosswalk is titled “\*\*\*\* Alpha-Numeric HCPCS File” (where \*\*\*\* = the year of the carrier calendar year data).
4. ***American Medical Association’s Current Procedural Terminology (AMA/CPT) Descriptions*** available at: <https://www.ama-assn.org/practice-management/find-coding-resources>. **NOTE:** CPT codes are a registered trademark of the AMA.
5. ***CMS Average Sales Price (ASP) Drug Pricing*** available at: <https://www.cms.gov/medicare/payment/part-b-drugs/asp-pricing-files>. The lists of ASP drug HCPCS for each quarter of the year are titled “QTRMonth \*\*\*\* ASP Pricing File” (where QTRMonth = 1<sup>st</sup> Month of each quarter and where \*\*\*\* = the year of the carrier calendar year data).
6. ***CMS National Plan and Provider Enumeration System (NPPES) Name and Address*** available at: [http://download.cms.gov/nppes/NPI\\_Files.html](http://download.cms.gov/nppes/NPI_Files.html). The most current full replacement NPPES name and address information for active NPIs is titled “NPPES Data Dissemination (month, DD, YYYY)”.

## **Methodology:**

**Step 1:** Create the following variables from the CMS Carrier data:

- **NPI** = Carrier Line Performing NPI Number (PRFNPI)
- **Hcpcs\_code** = Health Care Common Procedure Coding System (HCPCS\_CD)
- Derive **place\_of\_service** = 'F' when Line Place Of Service Code (PLCSRVC) contains one of the following values: '21', '22', '23', '24', '26', '31', '34', '41', '42', '51', '52', '53', '56', '61'; otherwise **place\_of\_service** = 'O'
- Derive **Medicare\_participation\_line\_count** = 1 when Line Provider Participating Indicator Code (PRTCPTG) **NOT** = '4' and **NOT** = '6'; otherwise **Medicare\_participation\_indicator** = 0
- **Provider\_specialty\_code** = Line HCFA Provider Specialty Code (HCFASPCL)
- **Day\_of\_service** = Line Last Expense Date (EXPNSDT2)
- **line\_srvc\_cnt** = Line Service Count (SRVC\_CNT)
- **submitted\_chrg\_amt** = Line Submitted Charge Amount (LSBMTCHG)
- **Medicare\_allowed\_amt** = Line Allowed Charge Amount (LALOWCHG)
- **Medicare\_payment\_amt** = Line Provider Payment Amount (LPRVPMT)
- **Bene\_id** = Encrypted CCW Beneficiary ID (BENE\_ID)

**Step 2:** Summarize the following variables from Step 1 to the **NPI**, **hcpcs\_code**, **place\_of\_service**:

- **bene\_unique\_cnt** = distinct count of bene\_id
- **bene\_day\_srvc\_cnt** = distinct count of bene\_id, day\_of\_service
- **line\_srvc\_cnt** = sum of line\_srvc\_cnt
- **submitted\_chrg\_amt** = sum of submitted\_chrg\_amt
- **Medicare\_allowed\_amt** = sum of Medicare\_allowed\_amt
- **Medicare\_payment\_amt** = sum of Medicare\_payment\_amt
- Derive **Medicare\_participation\_indicator** = 'Y' when sum of **medicare\_participation\_line\_count** > 0; otherwise **Medicare\_participation\_indicator** = 'N'

**Step 3:** Derive a single **provider\_specialty\_code** from Step 1 for each **NPI** record based on the **provider\_specialty\_code** associated with the maximum **line\_srvc\_cnt**.

**Step 4:** Merge the output from Step 2 (retaining all data) with the output from Step 3 using **NPI** and attach single **provider\_specialty\_code**.

**Step 5:** Merge output from Step 4 (retaining all data) with CMS Provider Specialty Descriptions using **provider\_specialty\_code** and attach the following:

- **provider\_type** = "Medicare Provider/Supplier Type Description"

**Step 6:** Derive a single list of distinct **hcpcs\_codes** (i.e. 1 record per **hcpcs\_code**) from the four (4) quarterly CMS ASP Drug Pricing data.

**Step 7:** Merge output from Step 5 (retaining all data) with output from Step 6 using **hcpcs\_code** and attach the following:

- Derive **hcpcs\_drug\_indicator** = 'Y' when match on **hcpcs\_code**; otherwise **hcpcs\_drug\_indicator** = 'N'.

**Step 8:** Merge output from Step 7 (retaining all data) with CMS HCPCS Level II Description data using **hcpcs\_code**. **NOTE:** This attaches descriptions for the “alpha-numeric” hcpcs\_codes.

- **hcpcs\_description** = “Long Description”

**Step 9:** Merge output from Step 8 (retaining all data) with AMA CPT Code Description data using **hcpcs\_code**. **NOTE:** This attaches descriptions for the “numeric” hcpcs\_codes (CPT Codes). CPT codes are a registered trademark of the AMA.

- **hcpcs\_description** = “AMA CPT Consumer Friendly Description”

**Step 10:** Merge output from Step 9 (retaining all data if match on **NPI**) with NPPES Name and Address data using **NPI** and attach the following:

- Derive **nppes\_provider\_last\_org\_name** = Provider Organization Name (Legal Business Name) when Entity Type Code = 'O'; else **nppes\_provider\_last\_org\_name** = Provider Last Name (Legal Name) when Entity Type Code = 'I'
- **nppes\_provider\_first\_name** = Provider First Name
- **nppes\_provider\_mi** = Provider Middle Name
- **nppes\_credentials** = Provider Credential Text
- **nppes\_entity\_code** = Entity Type Code
- **nppes\_provider\_street1** = Provider First Line Business Practice Location Address
- **nppes\_provider\_street2** = Provider Second Line Business Practice Location Address
- **nppes\_provider\_city** = Provider Business Practice Location Address City Name
- **nppes\_provider\_zip** = Provider Business Practice Location Address Postal Code
- **nppes\_provider\_state** = Provider Business Practice Location Address State Name
- **nppes\_provider\_country** = Provider Business Practice Location Address Postal Code

**Step 11:** Calculate averages from the output from step 10:

- **average\_medicare\_allowed\_amt** = Medicare\_allowed\_amt / line\_srvc\_cnt
- **average\_submitted\_chrg\_amt** = submitted\_chrg\_amt / line\_srvc\_cnt
- **average\_medicare\_payment\_amt** = Medicare\_payment\_amt / line\_srvc\_cnt