Medicare Durable Medical Equipment, Devices & Supplies Methodology

May 2024

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1. Background

The Centers for Medicare & Medicaid Services (CMS) has prepared a pair of public data sets, the Provider Utilization and Payment Data Durable Medical Equipment, Devices & Supplies Datasets, with information on DMEPOS products and services provided to Medicare beneficiaries ordered by physicians and other healthcare professionals. The Durable Medical Equipment, Devices & Supplies Dataset contains information on utilization, payment (allowed amount and Medicare payment), and submitted charges organized by National Provider Identifier (NPI), Healthcare Common Procedure Coding System (HCPCS) code, and supplier rental indicator. The data in the Medicare Durable Medical Equipment, Devices & Supplies dataset contains 100% final-action (i.e., all claim adjustments have been resolved) Part B non-institutional DMEPOS line items for the Medicare fee-for-service (FFS) population. This product includes separately aggregated files by referring and supplying provider NPI.

2. Key Data Sources

The data for the Durable Medical Equipment, Devices & Supplies Dataset are based upon CMS administrative claims data for Medicare beneficiaries enrolled in the fee-for-service program. These data are available from the CMS Chronic Condition Data Warehouse (CCW), a database with 100% of Medicare enrollment and fee-for-service claims data. Claim counts, supplier counts, service counts, supplier charges, Medicare allowed amounts and payments and the supplier rental indicator are summarized from Part B non-institutional claims processed through DMEPOS Medicare Administrative Contractor (MAC) Jurisdictions (NCH Claim Type Codes '81', '82'). Please see the CCW website for additional information.

For all Durable Medical Equipment, Devices & Supplies data years, provider demographics (name, credentials, gender, complete address and entity type) are included from the National Plan & Provider Enumeration System (NPPES). CMS developed the NPPES to assign unique identifiers, known as National Provider Identifiers (NPIs), to health care providers. The health care provider's demographic information is collected at the time of enrollment and updated periodically. The demographics information provided in the Durable Medical Equipment, Devices & Supplies Dataset was extracted from NPPES at the end of calendar year following the reporting year (e.g. for CY2017 reporting year, the NPPES data was extracted at the end of calendar year 2018). Please visit the NPPES website for additional information.

3. Population

The Durable Medical Equipment, Devices & Supplies Dataset includes data for providers that had a valid NPI and submitted Medicare Part B non-institutional DMEPOS claims during the reporting period. To protect the privacy of Medicare beneficiaries, any aggregated records which are derived from 10 or fewer beneficiaries are excluded from the Durable Medical Equipment, Devices & Supplies Dataset.

4. Data Contents

4.1 Detailed Data Files

Medicare Durable Medical Equipment, Devices & Supplies - by Referring Provider and Service

The spending and utilization data in the Durable Medical Equipment, Devices & Supplies – by Referring Provider and Service dataset are aggregated to the following:

a) the NPI for the **referring provider**,
b) the Healthcare Common Procedure Coding System (HCPCS) code, and
c) the supplier rental indicator (value of either 'Y' or 'N').

There can be multiple records for a given NPI based on the number of distinct HCPCS codes that were billed and where both rental and purchase of a product were supplied. Data have been aggregated based on the supplier rental indicator because separate fee schedules apply for rental versus purchase of products.

Medicare Durable Medical Equipment, Devices & Supplies - by Supplier and Service

The spending and utilization data in the Durable Medical Equipment, Devices & Supplies – by Supplier and Service dataset are aggregated to the following:

a) the NPI for the **supplier**,
b) the Healthcare Common Procedure Coding System (HCPCS) code, and
c) the supplier rental indicator (value of either 'Y' or 'N').

There can be multiple records for a given NPI based on the number of distinct HCPCS codes that were billed and where both rental and purchase of a product were supplied. Data have been aggregated based on the supplier rental indicator because separate fee schedules apply for rental versus purchase of products.

4.2 Summary Tables

Three summary type tables have been created to supplement the information reported in the Durable Medical Equipment, Devices & Supplies dataset: 1) aggregated information by **referring provider (NPI)** and 2) aggregated information by Geography and Service and HCPCS code 3) aggregated information by **supplier (NPI)**. The aggregated reports are not restricted to the redacted data reported in the Durable Medical Equipment, Devices & Supplies detailed data files but are aggregated based on all Medicare Part B non-institutional DMEPOS claims.

Medicare Durable Medical Equipment, Devices & Supplies - by Referring Provider

The "Medicare Durable Medical Equipment, Devices & Supplies - by Referring Provider" dataset contains information on utilization, payments (Medicare allowed amount, Medicare payment, and standardized Medicare payment), and submitted charges organized by **referring** NPI. Sub-totals for durable medical equipment services, prosthetic and orthotic services and drug and nutritional services are included as well as overall utilization, payment and charges. In addition, beneficiary demographic and health characteristics are provided which include age, sex, race, Medicare and Medicaid entitlement, chronic conditions and risk scores.

Medicare Durable Medical Equipment, Devices & Supplies - by Supplier

The "Medicare Durable Medical Equipment, Devices & Supplies - by Supplier" dataset contains information on utilization, payments (Medicare allowed amount, Medicare payment, and standardized Medicare payment), and submitted charges organized by **supplier** NPI. Sub-totals for durable medical equipment services, prosthetic and orthotic services and drug and nutritional services are included as well as overall utilization, payment and charges. In addition, beneficiary demographic and health characteristics are provided which include age, sex, race, Medicare and Medicaid entitlement, chronic conditions and risk scores.

Medicare Durable Medical Equipment, Devices & Supplies - by Geography and Service

The "Medicare Durable Medical Equipment, Devices & Supplies - by Geography and Service" dataset contains information on utilization, payment (allowed amount and Medicare payment), and submitted charges organized by HCPCS and supplier rental indicator in the national table and organized by **referring** provider state, HCPCS and supplier rental indicator in the state table.

5. Data Limitations:

Although the Durable Medical Equipment, Devices & Supplies Datasets have a wealth of payment and utilization information about many Medicare Part B DMEPOS products and services, the dataset also has a number of limitations that are worth noting.

First, the data in the Durable Medical Equipment, Devices & Supplies Dataset may not be representative of the provider's entire practice. The data in the file only has information for Medicare beneficiaries with Part B FFS coverage, but providers typically refer many other patients who do not have that form of coverage. The Medicare Durable Medical Equipment, Devices & Supplies Dataset does not have any information on patients who are not covered by Medicare, such as those with coverage from other federal programs (like the Federal Employees Health Benefits Program or Tricare), those with private health insurance (such as an individual policy or employer-sponsored coverage), or those who are uninsured. Even within Medicare, the Durable Medical Equipment, Devices & Supplies Dataset does not include information for patients who are enrolled in any form of Medicare Advantage plan.

The information presented in this file also does not indicate the quality of care provided by individual providers. The file only contains cost and utilization information, and for the reasons described in the preceding paragraph, the volume of products and services presented may not be fully inclusive of all products and services referred/supplied by the provider.

Medicare allowed amounts and Medicare payments for a given HCPCS code/rental indicator can vary based on a number of factors, including modifiers, geography, and other services performed during the same day/visit. For example, in some cases modifiers impact allowed amounts and payments. While we have accounted for the rental versus purchase of DMEPOS products by aggregating these separately in the Medicare Durable Medical Equipment, Devices & Supplies datasets, other modifiers (which signal a change in how the HCPCS code for the product or service should be applied) may impact allowed amounts and payments and have not been accounted for. In addition, allowed amounts and payments vary geographically because Medicare makes adjustments for most services based on an area's cost of living. For standard payment and allowed amount rates by CPT/HCPCS code, please visit the Durable Medical Equipment, Prosthetics/Orthotics & Supplies Fee Schedule.

Additionally, the data are not risk adjusted and thus do not account for difference in the underlying severity of disease of patient populations treated by providers. However, we have provided average beneficiary risk scores in the "Medicare Durable Medical Equipment, Devices & Supplies - by Referring Provider Dataset" (i.e., one record per NPI) to provide information on the health status of the beneficiaries the providers serve. Also, since the data presented are summarized from actual DMEPOS claims received from suppliers and no attempts were made to modify any data (i.e., no statistical outliers were removed or truncated), in rare instances the average submitted charge amount may reflect errors included on claims submitted by suppliers.

As noted earlier, the file does not include data for products or services that were performed on 10 or fewer claims, so users should be aware that summing the data in the file may underestimate the true Part B FFS DMEPOS totals that are associated with the referring/supplying provider.

Finally, if users try to link provider data (note: it is not possible to link by beneficiary) from this file to other public datasets, please be aware of the particular Medicare populations included and timeframes used in each file that will be merged. For example, efforts to link the Medicare Durable Medical Equipment, Devices & Supplies datasets data to the Physician and Other Practitioners PUF data would need to account for the fact that some providers (e.g. nurse practitioners/physician assistants) may refer DMEPOS products and services but may not necessarily render services as the performing NPI in the Physician and Other Practitioners PUF. Also, efforts to link the Medicare Durable Medical Equipment, Devices & Supplies datasets data to Part D prescription drug data would need to account for the fact that some beneficiaries who have FFS Part B coverage (and are thus included in the Medicare Durable Medical Equipment, Devices & Supplies datasets) do not have Part D drug coverage (and thus not represented in Part D data files). At the same time, some beneficiaries that have Part D coverage (and are thus included in the Part D data) do not have FFS Part B coverage (and thus not included in the Medicare Durable Medical Equipment, Devices & Supplies datasets). Another example would be linking to data constructed from different or non-aligning time periods, such as publicly available data on physician referral patterns, which is based on an 18-month period.

6. Additional Information

Other Data Sources: CMS also releases the "Medicare Fee-For-Service Public Provider Enrollment Data" that include provider name and address information from the Provider Enrollment and Chain Ownership System (PECOS). These data are updated on a quarterly basis and are available at data.cms.gov.

Medicare Standardized Spending: Users can find more information on Medicare payment standardization by referring to the Geographic Variation Methodology available within the "Risk adjustment and standardization" section of the following web page: Geographic Variation Methodology.

HCCs (hierarchical condition categories): CMS developed a risk-adjustment model that uses HCCs (hierarchical condition categories) to assign risk scores. Those scores estimate how beneficiaries' FFS spending will compare to the overall average for the entire Medicare population. The summary on average risk scores of beneficiaries represented in each calendar year of the Medicare Durable Medical Equipment, Devices & Supplies - by Referring Provider/Supplier datasets are located in the "Resources" section of the following web page: Medicare Durable Medical Equipment, Devices & Supplies - by Referring Provider. Beneficiaries with scores greater than the average risk score are expected to have above-average spending, and vice versa. Risk scores are based on a beneficiary's age and sex; whether the beneficiary is eligible for

Medicaid, first qualified for Medicare on the basis of disability, or lives in an institution (usually a nursing home); and the beneficiary's diagnoses from the previous year.

The HCC model was designed for risk adjustment on larger populations, such as the enrollees in an MA plan, and generates more accurate results when used to compare groups of beneficiaries rather than individuals. Please visit HCC risk score for more information.

7. Updates:

May 2024 Updates

We have added two tables that focus on supplier NPI:

Medicare Durable Medical Equipment, Devices & Supplies - by Supplier and Service and Medicare Durable Medical Equipment, Devices & Supplies - by Supplier. For more information, see section 4.

Additionally, we have updated the beneficiary chronic condition information reported in all available data years (2013 - 2022) of the Medicare Durable Medical Equipment, Devices & Supplies - by Referring Provider dataset. In 2020, CMS convened a technical expert panel (TEP) to refine and enhance 30 common chronic condition algorithms. The updated common chronic condition algorithms exist for data years 2017 forward. In regard to other chronic and disabling conditions, CMS has not made any changes to the original algorithms. Due to the changes in chronic condition information, we have made the following revisions to this data:

- For data years prior to 2017, all chronic condition variables have been removed.
- For data years 2017 to present, all *other chronic and disabling conditions* have been renamed with "V1" to indicate no change in original algorithm.
- For data years 2017 to present, *common chronic conditions* have been renamed with "V2" to indicate a change to original algorithm.

Caution should be used when comparing data reported in previously released versions of this data.

November 2018 Updates

We have updated the Medicare Durable Medical Equipment, Devices & Supplies datasets and all the supplemental summary tables to include Medicare standardized payment amounts. Standardization removes geographic differences in payment rates for individual services and makes Medicare payments across geographic areas comparable.

These updates begin with calendar year 2014 data. Previous year's data have not been re-published to include standardized Medicare payments amounts.

April 2018 Updates

We have updated the Medicare Durable Medical Equipment, Devices & Supplies - by Referring Provider dataset (i.e. one record per NPI) demographic and health information associated with the provider's beneficiary panel. This provider-level summary now includes aggregated information on beneficiary age, sex, race, Medicare and Medicaid entitlement, sixteen (16) chronic conditions and risk scores. In addition, oral cancer drugs billed by providers using the national drug code (NDC) and previously identified with

HCPCS codes beginning with 'WW' have been re-classified to the appropriate corresponding HCPCS code beginning with 'J' in the Medicare Durable Medical Equipment, Devices & Supplies datasets and the National/State HCPCS Aggregate Summaries.

These updates begin with calendar year 2015 data. Previous year's data have not been re-published to include these updates.