Chronic Condition Data Warehouse

Your source for national CMS Medicare and Medicaid research data

Medicare Part D
Formulary File

Codebook

May 2017
Version 1.0
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## Revision History

<table>
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<tr>
<th>Revision Date</th>
<th>Version Number</th>
<th>Description</th>
<th>Author(s)</th>
</tr>
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<tr>
<td>05/17/2017</td>
<td>1.0</td>
<td>Initial release of Codebook for PTD Formulary file.</td>
<td>Kathy Schneider,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chris Alleman</td>
</tr>
</tbody>
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BN

LABEL: Brand Name

DESCRIPTION: This is the brand name of the dispensed PDE, according to the First DataBank (FDB) reference files. The name that appears on the package label provided by the manufacturer. When this variable appears in the Formulary file, it is the FDB brand name for a drug product on the formulary.

SHORT NAME: BN

LONG NAME: BN

TYPE: CHAR

LENGTH: 30

SOURCE: First DataBank

VALUES: text description; DIABETIC SUPPLY for all diabetic supplies

COMMENT: In the PDE file, this variable is populated by linking to the proprietary First DataBank MedKnowledge database by matching on the National Drug Code (NDC; variable in the PDE files called the product service identifier PROD_SRVC_ID). In the Formulary file, this variable is first available in 2010. It is populated by matching the drug products on the Part D Plan submitted formulary to FDB. Part D plan sponsors submit the formulary to the CMS Health Plan Management System (HPMS). Plans identify the drug products on their formularies using the National Library of Medicine RxNorm Concept Unique Identifiers (RXCUIs). Each RXCUI corresponds to a unique brand name and clinical formulation (same ingredients, strength, and dosage form). Additional details regarding the FDB source data are available at: http://www.fdbhealth.com/fdb-medknowledge/
<table>
<thead>
<tr>
<th><strong>LABEL:</strong></th>
<th>Part D Contract Identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DESCRIPTION:</strong></td>
<td>This variable is the unique number CMS assigns to each contract that a Part D plan has with CMS. This field is a key that links of Part D sponsor's contract and plan identifiers.</td>
</tr>
<tr>
<td><strong>SHORT NAME:</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>LONG NAME:</strong></td>
<td>CONTRACT_ID</td>
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<td><strong>TYPE:</strong></td>
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<td><strong>LENGTH:</strong></td>
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<tr>
<td><strong>SOURCE:</strong></td>
<td>CMS (HPMS Files)</td>
</tr>
<tr>
<td><strong>VALUES:</strong></td>
<td>5-digit alpha/numeric value</td>
</tr>
<tr>
<td><strong>COMMENT:</strong></td>
<td>Prior to 2015, this variable was always encrypted to comply with CMS privacy rules. You need to know both the Part D contract number and plan benefit package identification number (variable called PLAN_ID) in order to identify the specific plan benefit package offered to beneficiaries. This variable corresponds with the CONTRACT_NAME variable, which is the contract name that corresponds with this number. The CCW constructs the Plan Characteristics File from information submitted by Part D plan sponsors to CMS's Health Plan Management System (HPMS).</td>
</tr>
</tbody>
</table>
**FORMULARY_ID**

**LABEL:** Formulary Identification Number

**DESCRIPTION:** This variable is the unique identification number assigned to each formulary. Part D plans submit their formularies to CMS and identify the drug products that are covered using the National Library of Medicine’s RxNorm Concept Unique Identifiers (RXCUIs). The same formulary may be used by more than one plan benefit package (PBP) within a contract.

**SHORT NAME:** FORMULARY_ID

**LONG NAME:** FORMULARY_ID

**TYPE:** CHAR

**LENGTH:** 8

**SOURCE:** PDE and CMS HPMS (derived) 

**VALUES:** 8-digit numeric value

**COMMENT:** Researchers interested in linking the Utilization Management (UM) variables (tier, step therapy, quantity limits, and prior authorization) to the PDE data will need to link the FORMULARY_ID and FRMLRY_RX_ID to the Formulary Characteristics File to get the UM variables. The CCW constructs a Formulary Characteristics File from the CMS Approved Formulary Data found in the CMS’s Health Plan Management System (HPMS). This variable is first available in 2010. This variable was always encrypted from 2010-2012 to comply with CMS privacy rules.
FRMLRY_RX_ID

LABEL: CCW Formulary Drug Identifier

DESCRIPTION: This variable is a CCW-created identifier for a drug product that is found in a Part D prescription drug plan's formulary. Part D Plans submit their formularies to CMS and identify drug products using the National Library of Medicine RxNorm Concept Unique Identifiers (RXCUIs). There can be several drug products submitted that are the same clinical formulation (same ingredients, strength, and dosage form) but different brand names. Each RXCUI corresponds to a unique brand name and clinical formulation. The CCW Formulary drug ID is analogous to an RXCUI.

SHORT NAME: FRMLRY_RX_ID

LONG NAME: FRMLRY_RX_ID

TYPE: CHAR

LENGTH: 8

SOURCE: PDE and CMS HPMS (derived)

VALUES: 8-digit number
The value: 99999999 indicates diabetic supplies.

COMMENT: This variable was new in 2010. The Formulary Characteristics Files are built from the CMS Approved Formulary Data found in the CMS’ Health Plan Management System (HPMS) where a proxy NDC is assigned to each RXCUI. The proxy NDC for each drug product is mapped to a unique First DataBank (FDB) brand name and proprietary clinical formulation identifier which is then assigned a CCW sequence number (FRMLRY_RX_ID). In order for a PDE record to link to the Formulary Characteristics Files, the drug product on the PDE must map to a FRMLRY_RX_ID in the formulary associated with the plan of record. Researchers interested in linking the Utilization Management (UM) variables (tier, step therapy, quantity limits, and prior authorization) to the PDE data will need to link the FORMULARY_ID and FRMLRY_RX_ID to the Formulary Characteristics File to get the UM variables.
GCDF

LABEL: Dosage Form Code

DESCRIPTION: This variable is the dosage form code according to the First DataBank (FDB) reference files. The dosage form describes the physical presentation of a drug, such as tablet, capsule, or liquid. It may also incorporate the delivery and release mechanism of the drug. When this variable appears in the Formulary file, it is the FDB dosage form code for a drug product on the formulary.

SHORT NAME: GCDF

LONG NAME: GCDF

TYPE: CHAR

LENGTH: 2

SOURCE: First DataBank

VALUES: 2-digit alpha/numeric code (e.g., CA [capsule], PS [adhesive patch, medicated])

COMMENT: The narrative description for this code appears in the dosage form code description variable (called GCDF_DESC). In the Formulary file, this variable is populated by matching the drug products on the Part D Plan submitted formulary to FDB. Part D plan sponsors submit the formulary to the CMS Health Plan Management System (HPMS). Plans identify the drug products on their formularies using the National Library of Medicine RxNorm Concept Unique Identifiers (RXCUIs). Each RXCUI corresponds to a unique brand name and clinical formulation (same ingredients, strength, and dosage form). In the PDE file, this variable is populated by linking to the proprietary First DataBank MedKnowledge database by matching on the National Drug Code (NDC; variable in the PDE files called the product service identifier PROD_SRVC_ID). Additional details regarding the FDB source data are available at: http://www.fdbhealth.com/fdb-medknowledge/
**GCDF_DESC**

**LABEL:** Dosage Form Code Description

**DESCRIPTION:** This variable describes the dosage form of a clinical formulation, according to the First DataBank (FDB) reference files. The dosage form is the physical presentation of a drug, such as tablet, capsule, or liquid. It may also incorporate the delivery and release mechanism of the drug. When this variable appears in the Formulary file, it is the FDB dosage form code description for a drug product on the formulary.

**SHORT NAME:** GCDF_DESC

**LONG NAME:** GCDF_DESC

**TYPE:** CHAR

**LENGTH:** 40

**SOURCE:** First DataBank

**VALUES:** Narrative description (e.g., DROPS or TABLET)

**COMMENT:** The accompanying FDB code for this description appears in the dosage form code variable (called GCDF). In the Formulary file, this variable is populated by matching the drug products on the Part D Plan submitted formulary to FDB. Part D plan sponsors submit the formulary to the CMS Health Plan Management System (HPMS). Plans identify the drug products on their formularies using the National Library of Medicine RxNorm Concept Unique Identifiers (RXCUIs). Each RXCUI corresponds to a unique brand name and clinical formulation (same ingredients, strength, and dosage form).

In the PDE file, this variable is populated by linking to the proprietary First DataBank MedKnowledge database by matching on the National Drug Code (NDC; variable in the PDE files called the product service identifier PROD_SRVC_ID). Additional details regarding the FDB source data are available at: http://www.fdbhealth.com/fdb-medknowledge/
GNN

LABEL: Generic Name

DESCRIPTION: This is the generic name of the dispensed PDE, according to the First DataBank (FDB) reference files. It is the drug ingredient name adopted by United States Adopted Names (USAN). When this variable appears in the Formulary file, it is the FDB generic name for a drug product on the formulary.

SHORT NAME: GNN

LONG NAME: GNN

TYPE: CHAR

LENGTH: 30

SOURCE: First DataBank

VALUES: text description of drug (e.g., RISEDRONATE SODIUM, MEMANTINE HCL)

COMMENT: FDB uses the chemical name when the USAN name is not available. For multi-ingredient products, abbreviations may be used (e.g., HCTZ [Hydrochlorothiazide] and PP [Phenylpropanolamine]). In the Formulary file, this variable is populated by matching the drug products on the Part D Plan submitted formulary to FDB. Part D plan sponsors submit the formulary to the CMS Health Plan Management System (HPMS). Plans identify the drug products on their formularies using the National Library of Medicine RxNorm Concept Unique Identifiers (RXCUIs). Each RXCUI corresponds to a unique brand name and clinical formulation (same ingredients, strength, and dosage form). In the PDE file, this variable is populated by linking to the proprietary First DataBank MedKnowledge database by matching on the National Drug Code (NDC; variable in the PDE files called the product service identifier PROD_SRVC_ID). Additional details regarding the FDB source data are available at: http://www.fdbhealth.com/fdb-medknowledge/
**PLAN_ID**

**LABEL:** Part D Plan Benefit Package Identifier

**DESCRIPTION:** This variable is the unique plan benefit package (PBP) number for the Part D plan sponsor’s contract. CMS assigns an identifier to each PBP within a contract that a Part D plan sponsor has with CMS. This field is a key that links of Part D sponsor’s contract and plan identifiers.

**SHORT NAME:** -

**LONG NAME:** PLAN_ID

**TYPE:** CHAR

**LENGTH:** 3

**SOURCE:** CMS (HPMS Files)

**VALUES:** 3-digit numeric value

**COMMENT:** Prior to 2015, this variable was always encrypted to comply with CMS privacy rules. You need to know both the Part D contract number (variable called CONTRACT_ID) and plan benefit package identifier in order to identify the specific plan benefit package offered to beneficiaries. The CCW constructs the Plan Characteristics File from information submitted by Part D plan sponsors to CMS’s Health Plan Management System (HPMS).
PRIOR_AUTHORIZATION_YN

LABEL: Prior Authorization Indicator

DESCRIPTION: This is a CCW-derived field that indicates whether the prescription was subject to prior authorization, according to the benefit structure and formulary for the beneficiary’s plan.

SHORT NAME: -

LONG NAME: PRIOR_AUTHORIZATION_YN

TYPE: CHAR

LENGTH: 2

SOURCE: CMS (HPMS Files)

VALUES: 0 = No
1 = Yes

COMMENT: Part D plan sponsors submit the pricing, tiers, and formularies for their plan benefit packages to CMS via the Health Plan Management System (HPMS). This includes information on which drugs are subject to prior authorization, which means that a physician must get the plan’s approval in advance before prescribing the drug. The value of this field may not exactly represent the beneficiary experience at the time of the prescription fill (e.g., no data are collected at the time of the transaction to indicate the actual beneficiary experience). For 2006-2009 this variable was found in the Event Characteristics Files (BP_UM_TIER_YYYY_MM). This variable is first available in the Formulary File in 2010.
QUANTITY_LIMIT_YN

LABEL: Quantity Limit Indicator

DESCRIPTION: This is a CCW-derived field that indicates whether the prescription was subject to quantity limits, according to the benefit structure and formulary for the beneficiary’s plan.

SHORT NAME: -

LONG NAME: QUANTITY_LIMIT_YN

TYPE: CHAR

LENGTH: 2

SOURCE: CMS (HPMS Files)

VALUES: 0 = No
1 = Yes

COMMENT: For 2006-2009 this variable was found in the Event Characteristics Files (BP_UM_TIER_YYYY_MM). This variable is first available in the Formulary File in 2010. Part D plan sponsors submit the pricing, tiers, and formularies for their plan benefit packages to CMS via the Health Plan Management System (HPMS). This includes information on which drugs are subject to quantity limits, which restrict the amount that a beneficiary may receive within a certain time period. The value of this field may not exactly represent the beneficiary experience at the time of the prescription fill (e.g., no data are collected at the time of the transaction to indicate the actual beneficiary experience).
**STEP_THERAPY_YN**

**LABEL:** Step Therapy Indicator

**DESCRIPTION:** This is a CCW-derived field that indicates whether the prescription was subject to a step therapy protocol, according to the benefit structure and formulary for the beneficiary's plan.

**SHORT NAME:** -

**LONG NAME:** STEP_THERAPY_YN

**TYPE:** CHAR

**LENGTH:** 2

**SOURCE:** CMS (HPMS Files)

**VALUES:**

0 = No
1 = Yes

**COMMENT:** Part D plan sponsors submit the pricing, tiers, and formularies for their plan benefit packages to CMS via the Health Plan Management System (HPMS). This includes information on which drugs are subject to step therapy, which requires a beneficiary to first try one or more other medications in the same therapeutic class. The value of this field may not exactly represent the beneficiary experience at the time of the prescription fill (e.g., no data are collected at the time of the transaction to indicate the actual beneficiary experience).

This variable is first available in the Formulary Excluded Drug File in 2012.
**STEP**

**LABEL:** Step Number

**DESCRIPTION:** This is a CCW-derived field that indicates whether the prescription was subject to a step therapy protocol, according to the benefit structure and formulary for the beneficiary’s plan. If a product is part of two different step therapy protocols, this field is populated with the maximum step value for the product.

If the value is greater than 1, then the beneficiary’s plan imposed some type of step therapy requirement, and the value indicates the number of steps or therapy trials needed before becoming eligible for the current drug.

**SHORT NAME:** -

**LONG NAME:** STEP

**TYPE:** CHAR

**LENGTH:** 2

**SOURCE:** CMS (HPMS Files)

**VALUES:** Null (no step requirement), 1-4

**COMMENT:** Part D plan sponsors submit the pricing, tiers, and formularies for their plan benefit packages to CMS via the Health Plan Management System (HPMS). This includes information on which drugs are subject to step therapy, which requires a beneficiary to first try one or more other medications in the same therapeutic class.

The value of this field may not exactly represent the beneficiary experience at the time of the prescription fill (e.g., no data are collected at the time of the transaction to indicate the actual beneficiary experience).

For 2006-2009 this variable was found in the Part D Event Characteristics Files. This variable is first available in the Formulary File in 2010. It is also present in the Excluded Drug File, starting with 2012 data.
**STEP_THERAPY_YN**

**LABEL:** Step Therapy Indicator

**DESCRIPTION:** This is a CCW-derived field that indicates whether the prescription was subject to a step therapy protocol, according to the benefit structure and formulary for the beneficiary’s plan.

**SHORT NAME:** -

**LONG NAME:** STEP_THERAPY_YN

**TYPE:** CHAR

**LENGTH:** 2

**SOURCE:** CMS (HPMS Files)

**VALUES:**
0 = No
1 = Yes

**COMMENT:** Part D plan sponsors submit the pricing, tiers, and formularies for their plan benefit packages to CMS via the Health Plan Management System (HPMS).

This includes information on which drugs are subject to step therapy, which requires a beneficiary to first try one or more other medications in the same therapeutic class. The value of this field may not exactly represent the beneficiary experience at the time of the prescription fill (e.g., no data are collected at the time of the transaction to indicate the actual beneficiary experience).

This variable is first available in the Formulary Excluded Drug File in 2012.
**STR**

**LABEL:** Drug Strength Description  

**DESCRIPTION:** This variable is the strength or potency of the drug product as dispensed, according to the First DataBank (FDB) reference files. When this variable appears in the Formulary file, it is the FDB drug strength for a drug product on the formulary.

**SHORT NAME:** STR  

**LONG NAME:** STR  

**TYPE:** CHAR  

**LENGTH:** 10  

**SOURCE:** First DataBank  

**VALUES:** 10-digit alpha/numeric value (e.g., 25MG, 1:10000, or 10MG/100ML)  

**COMMENT:** Description of drug potency may be expressed in units of grams, milligrams, percentage, and other terms. In the Formulary file, this variable is populated by matching the drug products on the Part D Plan submitted formulary to FDB. Part D plan sponsors submit the formulary to the CMS Health Plan Management System (HPMS). Plans identify the drug products on their formularies using the National Library of Medicine RxNorm Concept Unique Identifiers (RXCUIs). Each RXCUI corresponds to a unique brand name and clinical formulation (same ingredients, strength, and dosage form). In the PDE file, this variable is populated by linking to the proprietary First DataBank MedKnowledge database by matching on the National Drug Code (NDC; variable in the PDE files called the product service identifier PROD_SRVC_ID). Additional details regarding the FDB source data are available at: http://www.fdbhealth.com/fdb-medknowledge/
### TIER_ID

**LABEL:** Tier Number  

**DESCRIPTION:** Medicare Part D formulary tier identifier. This field represents the cost sharing tier in which the drug product was placed in the sponsor's formulary. This identifier is also a key that links a Part D sponsor's cost sharing tier record in the Plan Characteristics File to a prescription drug event record (i.e., the PDE data) using contract ID, plan ID, and tier ID.  

**SHORT NAME:** -  

**LONG NAME:** TIER_ID  

**TYPE:** CHAR  

**LENGTH:** 2  

**SOURCE:** CMS (HPMS Files)  

**VALUES:** 01 - 09  

**COMMENT:** For 2006-2009 this variable was found in the Part D Event Characteristics Files. This variable is first available in the Formulary File in 2010. It is also present in the Excluded Drug File, starting with 2012 data. It can be joined to PDE using the combination of the plan's formulary ID (variable called FORMULARY_ID) and the CCW formulary drug identifier (variable called FORMULARY_RX_ID) to determine the placement of a particular PDE on the formulary (according to plan design). The value of this field may not exactly represent the beneficiary experience at the time of the prescription fill (e.g., no data are collected at the time of the transaction to indicate the actual beneficiary experience). The maximum number of tiers varied by year. The largest number of tiers was 9 (in 2007). Starting in 2011, only up to six tiers are possible. The CCW constructs the Plan Characteristics File from information submitted by Part D plan sponsors to CMS’s Health Plan Management System (HPMS).