



# Chronic Condition Data Warehouse

## Part D Data User Guide

**Version 3.2**  
**September 2011**

## Overview

The Medicare Part D prescription drug benefit was authorized through the Medicare Prescription Drug, Improvement, and Modernization Act MMA of 2003 (MMA, Section 101). The Medicare prescription drug benefit, which is a voluntary benefit offered through the Medicare Part D program, is optional drug coverage beneficiaries may purchase through private plans. Coverage of prescription drugs through Medicare Part D began in 2006. The Chronic Condition Data Warehouse (CCW) contains all Part D events, regardless of whether the beneficiary was enrolled in a managed care plan or a stand-alone prescription drug plan. More information on the CCW can be found at <http://www.ccwdata.org>. Beneficiaries who qualify for both Medicare and Medicaid (full-benefit dual eligibles) will automatically receive the Medicare drug benefit. The MMA also provides for assistance with premiums and cost sharing to eligible low-income beneficiaries.

As of June 2008, a federal rule allowed for the release of Part D data to researchers. This rule established stringent protection for beneficiary and commercially-sensitive data, while allowing researchers to obtain minimum data necessary to conduct approved studies. The Part D data contained within the Centers for Medicare & Medicaid Services (CMS) CCW is the official data source for external requests for Part D research data files. The data in the CCW contains all of the Part D program enrollment and utilization information.

The CCW contains CMS Medicare beneficiary data (from multiple data sources) linked by a unique identifier, allowing researchers to analyze information across the continuum of care. The CCW makes it easy to study chronic diseases by incorporating twenty-one (21) condition-specific variables which indicate treatment for the condition of interest, however, it is important to note that this database is representative of the entire Medicare population, and is not limited to those with a chronic condition. The CCW contains data from fee-for-service institutional and noninstitutional claims, enrollment/eligibility, and assessment data (i.e., *Minimum Data Set*, *Outcome and Assessment Information Set*, *Swing bed assessments*, and *Inpatient Rehabilitation Facility Patient Assessment Instrument*) from January 1, 1999 forward.

Researchers interested in obtaining Medicare Part A and B data in addition to the Part D data, may obtain the standard random 5% sample of Medicare beneficiaries. However, for researchers interested only in Part D data, a random 10% or 20% Part D beneficiary sample is the standard data extract available to approved researchers (based on minimum data necessary standards). Alternatively, CCW data are available upon request for specific researcher-defined cohorts. These may include chronic condition cohorts, using the pre-defined chronic disease indicator variables to identify a study cohort. The selection criteria for the pre-defined chronic condition cohorts were defined by CMS, in collaboration with the Research Data Assistance Center (ResDAC). Please see the documentation on [ccwdata.org](http://ccwdata.org) for more information. Data may also be requested for beneficiaries with other clinical conditions or other cohort(s) of interest. For example, researchers may be interested in studying a particular drug or therapeutic class of drugs, therefore would identify a cohort based on national drug codes (NDCs).

This manual provides users with information that may be helpful in understanding and analyzing the CCW Part D data.

**Table of Contents**

Chapter 1 Part D Enrollment (Denominator Data) ..... 3

Chapter 2 Part D Prescription Drug Event Data ..... 7

    A. Phase I Utilization File..... 8

    B. PDE File ..... 8

    C. First DataBank® ..... 9

    D. Part D Event Characteristics ..... 9

    E. Limitations..... 11

Chapter 3 Part D Characteristics Files ..... 12

    A. Drug Characteristics Supplemental Variables ..... 13

    B. Plan Characteristics Files ..... 13

    C. Pharmacy Characteristics File..... 16

    D. Prescriber Characteristics File ..... 17

Chapter 4 CCW Part D Sample Population ..... 18

Chapter 5 Linkage of CCW Data and Data Limitations ..... 19

    A. CCW Beneficiary Identifiers ..... 19

    B. Part D Plan Identifiers ..... 19

    C. Data Limitations ..... 20

Chapter 6 Content, Format, and Encryption of CCW Output Files..... 21

Chapter 7 Further Assistance with CCW Data ..... 23

Appendix A..... 24

## **Chapter 1 Part D Enrollment (Denominator Data)**

All Medicare Part D prescription drug benefits are provided through private plans (a.k.a. plan sponsors). Generally, Part D coverage is provided under Prescription Drug Plans (PDPs), which offer only prescription drug coverage, or through Medicare Advantage Prescription Drug Plans (MA-PD) plans, which offer prescription drug coverage that is integrated with the health care coverage they provide to Medicare beneficiaries under Part C.

The Part D Denominator File includes the Medicare Part D enrollment/eligibility status for each Medicare-eligible beneficiary. This information is present regardless of the type of Medicare Part D plan the beneficiary might select (i.e., enrollment data are present for managed care participants as well as those enrolling in stand-alone prescription drug plans). Information is also available for Medicare beneficiaries who did not obtain Part D coverage.

Part D plan sponsors have flexibility to design a prescription drug benefit within certain parameters set by CMS. Plans must offer at least a “basic” benefit in terms of deductibles, copayments, formularies, and prior authorization requirements for certain drugs. Part D plans may choose to offer Part D coverage with enhanced benefits (e.g., lower deductibles/copayments, expanded formulary, prescription coverage during the gap, etc.) via supplemental premiums. The MMA also provides for subsidy payments to sponsors of qualified retiree prescription drug plans (the retiree drug subsidy, or RDS) to encourage retention of non-Part D employer-sponsored benefits.

Additional information regarding Part D coverage options can be found at [http://www.cms.hhs.gov/PrescriptionDrugCovContra/12\\_PartDManuals.asp#TopOfPage](http://www.cms.hhs.gov/PrescriptionDrugCovContra/12_PartDManuals.asp#TopOfPage). Beneficiaries enroll in a plan for a calendar year, with open enrollment occurring annually between November 15 – December 31. There is a late enrollment penalty for those who are eligible for Part D but choose not to enroll for any given year (and do not have creditable coverage for that time).

The Part D enrollment data are available as part of the CMS Denominator File or in combination (as an additional file) with the CCW Beneficiary Summary File. A description of the variables contained within each file can be found on the Content/Documentation page on the CCW website (<http://www.ccwdata.org/datadoc.php>).

The major difference between the CMS Denominator File and the CCW Beneficiary Summary File is that the Beneficiary Summary File allows for an entire year of monthly Enrollment Database (EDB) updates beyond the end of the calendar year; whereas the Denominator File is finalized after March of the following year.

The enrollment and coverage variables pertaining to Part D benefit are a set of variables which researchers can merge into the Beneficiary Summary File or the EDB. The variables are:

<b>Variable name (short)</b>	<b>Variable description</b>	<b>Brief definition*</b>
CRDCOVSW	On/off Creditable Coverage Switch	Indicator of creditable coverage in January of the Denominator File year, e.g., FEHB, TRICARE, VA, SPAP, or active workers (i.e., ESRD, disabled, aged)
CNTRCT<month>	Encrypted Contract ID	The encrypted, unique number CMS assigns to each contract that a Part D plan has with CMS (12 monthly occurrences). The first character of the contract ID is a letter representing the type of plan, e.g., Managed Care Organizations, Regional PPO, Regional PPO, PDP, Not Part D Enrolled, Employer Direct Plan (beginning in 2007)
PBPID<month>	Encrypted Plan Benefit Package ID	The encrypted, unique number CMS assigns to identify a specific Part D plan benefit package within a contract (12 monthly occurrences).
SGMTID<month>	Encrypted Segment ID	The encrypted segment number CMS assigns to identify a segment or subdivision of a Part D plan benefit package within a contract (12 monthly occurrences).
CSTSHR<month>	Cost Share Group	Monthly indicator of beneficiary liability of cost-sharing. Includes values to indicate whether the beneficiary was deemed to be eligible or whether there was a subsidy.
RDSIND<month>	Retiree Drug Subsidy Indicators	Monthly indicator of whether employer should be subsidized for beneficiary
DUAL<month>	State Reported Dual Eligible Status Code	Monthly indicator of dual eligibility status; where beneficiary is enrolled in both Medicaid and Medicare
PLNCOVMO	Part D Plan Coverage Months	Total number of months of Part D plan coverage
RDSCOVMO	Retiree Drug Subsidy Months	Total number of months employer is entitled to Retiree Drug Subsidy for beneficiary
DUAL_MO	Medicaid Dual Eligible Months	Total number of months of dual eligibility status
RTI_RACE	Research Triangle Institute Race Code	Enhanced race/ethnicity designation based on first and last name algorithms

\* More detail regarding the meaning of these fields in terms of the Part D benefit appears below this table.

*Creditable Coverage Switch* - A number of Medicare-eligible beneficiaries may have access to other types of prescription drug plans. Creditable prescription drug coverage includes, but is not limited to: employer-based prescription drug coverage, including the Federal Employees Health Benefits Program (FEHB); qualified State Pharmaceutical Assistance Programs (SPAPs); military-related coverage (e.g., VA, TRICARE); and certain Medicare supplemental (Medigap) policies.

Medicare beneficiaries may incur a late enrollment penalty (LEP) if there is a continuous period of 63 days or more at any time after the end of the individual's Part D initial enrollment period during which the individual was eligible to enroll, but was not enrolled in a Medicare Part D plan and was not covered under any creditable prescription drug coverage. A null value indicates that the beneficiary had no known creditable coverage at any time during the year; a value of 1 indicates that, for at least one month during the year, the beneficiary had one of the types of creditable coverage. Please note that we would not expect to see Part D prescription drug events (PDEs) during the months when the beneficiary did not have Part D coverage even if he/she had some form of creditable coverage.

Creditable prescription drug coverage is prescription drug coverage that is expected to pay at least as much as Medicare's standard prescription drug coverage. For additional details regarding the creditable coverage provision of the Part D benefit, please see: <http://www.cms.hhs.gov/MedicarePresDrugEligEnrol/Downloads/ccLEPguidance20070612.pdf>

*Encrypted Contract ID* – This field indicates the type of Part D plan, if any, the eligible beneficiary selected. This field contains the encrypted, unique number CMS assigns to each contract that a Part D plan has with CMS. There are 12 monthly occurrences of this field. The first character of the contract ID, which is not encrypted, is a letter representing the type of plan:

- H = Managed Care Organizations other than Regional PPO (i.e., local MA-PDs), 1876 Cost plans, National Program of All-inclusive Care for the Elderly [PACE] plans, Private Fee-for-Service plans, or Demonstration Organization plans
- R = Regional PPO
- S = PDP
- E = Employer Direct Plan (beginning in 2007)
- N = Not Part D Enrolled

All employer plans (Employer Sponsored Plans and Employer/Union Only Direct Contract Plans) have 800-series Plan Benefit Package (PBP) IDs and could have plan types of H, R, or S. Beginning in 2007, Employer/Union Only Direct Contract Plans have been given their own plan type designation of "E".

*Encrypted Plan Benefit Package ID* – This field indicates the encrypted, unique number CMS assigns to identify a specific Part D plan benefit package within a contract. There are 12 monthly occurrences of this field. This information can be linked to Part D Plan characteristics data to better understand the nuances of the benefit available through the plan (see Chapter 3).

*Encrypted Segment ID* – This field indicates the encrypted segment number CMS assigns to identify a segment or subdivision of a Part D plan benefit package within a contract. There are 12 monthly occurrences of this field. This information can be linked to Part D Plan characteristics data (see Chapter 3).

*Cost Share Group* - The Part D benefit includes cost-sharing provisions. State Medicaid and other government-sponsored subsidized premiums and/or copayments/coinsurance for low-income individuals are allowed. Additionally, unlike Medicare A and B, the Part D benefit allows for means-testing. The low-income subsidy (LIS) provides assistance to certain low-income individuals to supplement the premium and cost-sharing (including deductibles and cost-sharing during the coverage gap) associated with the Part D benefit. Subsidies may also be provided to employers to cover eligible beneficiaries. All of these cost sharing provisions are indicated within this variable. There are 12 monthly occurrences of this field. Additional details regarding the LIS provisions within the Part D benefit can be found at: <http://www.cms.hhs.gov/PrescriptionDrugCovContra/Downloads/R7PDB.pdf>

*Retiree Drug Subsidy*– Some employers offer prescription drug plans to their retirees. CMS has allowed qualified retiree plans to purchase D coverage, at a subsidized rate, on behalf of their retirees. Monthly indicators document whether retiree drug subsidies were used. Since this program operates as a Part D subsidy rather than as a Part D contract, PDEs would not be available during the RDS months. There are 12 monthly occurrences of this field.

*State Reported Dual Eligible Status Code* – State reported Medicaid coverage; indicates entitlement to Medicare and concurrent eligibility for a Title XIX benefit (i.e., Medicaid or a Medicare Savings Program). An individual is deemed to be eligible for a full subsidy if he/she is entitled to Medicare and:

- A full benefit dual eligible individual (eligible for full Medicaid benefits);
- A recipient of Supplemental Security Income (SSI) benefits; or
- Eligible for full Medicaid benefits, and/or the Medicare Savings Program as a Qualified Medicare Beneficiary (QMB), Specified Low Income Medicare Beneficiary (SLMB), or Qualifying Individual (QI) under a State’s Medicaid plan.

There are 12 monthly occurrences of this field.

#### *Monthly coverage variables*

*Part D Plan Covered Months* – Number of months during the year of Part D coverage; values = 00 through 12. This variable accumulates all monthly occurrences where the Part D plan type (the first character in CNTRCT<month>) is H, R, S, or E.

*RDS Months* – For beneficiaries with a retiree drug subsidy, the number of months during the year with RDS coverage; values = 00 through 12. This variable accumulates all monthly occurrences where RDS (RDSIND) is 'Y'.

*Medicaid Dual Eligible Months* – For beneficiaries with a state-reported Medicaid dual-eligible indicator, the number of months during the year with dual coverage; values = 00 through 12. This variable accumulates all monthly occurrences where the State reported dual eligible status code (DUAL) is a value 01 - 09.

*RTI Race Code*– This variation on the race code which has historically been used by SSA, classifies an additional group of beneficiaries as Hispanics. Using this enhanced classification algorithm, Hispanics include beneficiaries who *either* have an SSA race code which = Hispanic or a first name/last name which RTI (note: the contractor which created this field is RTI International - a trade name of Research Triangle Institute) has determined is likely to be Hispanic in origin.

Due to timing differences between CMS data sources (e.g., Part D enrollment and Medicare entitlement information), there may be a small number of beneficiaries where there is an inconsistency between Part D enrollment indicators and Medicare entitlement indicators. Furthermore, a small number of plan IDs appearing in the PDE file will not be able to be linked to the Part D Denominator File because of such timing differences.

## **Chapter 2 Part D Prescription Drug Event Data**

Claims for prescription drugs are submitted by pharmacies to the Part D health plans for beneficiaries enrolled in Medicare Part D. This information is transmitted to CMS, and administrative data files called prescription drug event (PDE) data files are created. The PDE data are created from point-of-service transactional data at the time a prescription is filled. Data for prescriptions which are ordered but not filled do not exist in this database (i.e., data are not prescribing data, but rather reflect filled prescriptions).

The CCW contains all of the Medicare Part D Prescription Drug Event (PDE) data beginning with the inception of the Part D benefit in 2006. The CCW receives an annual standard analytic file (SAF) with part D data from CMS. These PDE data are considered “final action”, as they represent the final status of a drug claim at the time of CMS’ payment reconciliation process (i.e., the records account for post-transaction adjustments).

Not all Medicare-enrolled beneficiaries elect to purchase Part D coverage. PDE data are not submitted by plans which receive RDS, or for other types of plans which are considered to be Part D creditable coverage (e.g., VA, TRICARE, FEHBP).

The complete PDE record is obtained by CCW from the CMS Part D SAF file. This includes information such as the specific drug, cost, pharmacy, provider, and benefit information. Researchers are required to select variables based on minimum data necessary and justify the need for each variable. Please note that some of these fields contain protected information, and will be either encrypted upon delivery or masked using an unidentifiable CCW-assigned ID value. These sensitive fields are those which could be used to identify the beneficiary, the prescriber, the pharmacy, or the plan.

Researchers may select from two major types of PDE products: 1) the “Phase I” utilization file, or 2) self-selected data elements from the PDE. A description of the variables contained within each file can be found on the Content/Documentation page on the CCW website (<http://www.ccwdata.org/datadoc.php>).

**A. Phase I Utilization File**

The Phase I file is a streamlined, standardized set of variables, designed to be used in combination with Medicare A and/or B data, or with the Part D denominator file, if desirable. This streamlined file does not allow for event characteristics variables to be appended (see Part D Event Characteristics description later in this Chapter), nor is this Phase I file able to be linked to any other plan characteristics data files (described in Chapter 3). However, requests for this file go through an “expedited” CMS Data Review Board process, due to the limited nature of the dataset.

**B. PDE File**

Nearly all of the variables stored by CMS as part of the PDE are available to researchers. Please refer to the full file layout on the CCW website. Researchers may request any number and combination of variables, and a variable-by-variable justification must be provided as part of the data request packet obtained through ResDAC.

Several fields will be encrypted prior to release:

<b>Variable name (short)</b>	<b>Variable description</b>	<b>Data File(s)</b>
PDE_ID	PDE event ID	PDE
BENE_ID	CCW beneficiary ID	PDE; Bene Summary; Denominator
CNTRCT<month> <i>(Denominator)</i>	Plan contract ID	Denominator; Plan characteristics file; PDE
CNTRCTID <i>(Plan Characteristics File)</i>		
PLNCNTRC <i>(PDE)</i>		
PBPID<month> <i>(Denominator)</i>	Plan benefit package ID	Denominator; Plan characteristics file; PDE
PLAN_ID <i>(Plan Characteristics File)</i>		
PLNPBPRC <i>(PDE)</i>		
SGMTID<month> <i>(Denominator)</i>	Segment ID	Denominator; Plan characteristics file
SGMT_ID <i>(Plan Characteristics File)</i>		

In addition, some fields contain CCW-assigned unique IDs:

Variable name (short)	Variable description	Data File(s)
PHARM_ID	CCW Pharmacy Identifier	PDE; Pharmacy characteristics file
CCW_PRSCRBR_ID	CCW Prescriber Identifier	PDE; Prescriber characteristics file

If researchers have requested any of the characteristics files (see Chapter 3 for options), the corresponding IDs on these files will be encrypted synchronously to allow linkages between these files.

### C. First DataBank®

Through a special licensing arrangement, CCW is able to provide researchers with a set of descriptive variables regarding the drug dispensed. This supplemental set of variables is called the “Drug Characteristics File” – and is described in Chapter 3.

### D. Part D Event Characteristics

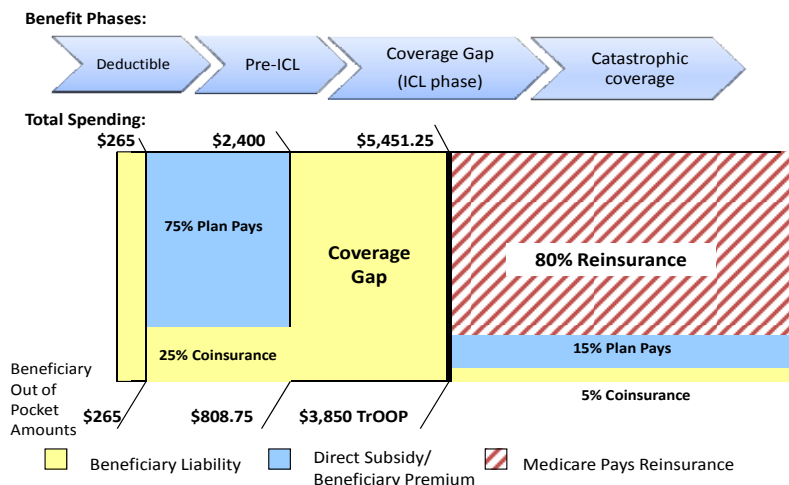
CCW has made available a set of five descriptive variables which may be added to a researcher’s PDE files. These supplemental descriptive variables include: information regarding where the PDE occurred in terms of the beneficiary’s benefit phase (e.g., in the deductible, initial coverage limit, or catastrophic phase of the benefit), and four utilization management (UM) variables: 1) on which drug tier the drug was classified according to the plan’s formulary tiers, 2) whether the drug was subject to step therapy, 3) whether the drug was subject to quantity limits, and 4) whether the drug was subject to prior authorization. These variables are based on the plan’s formulary files, and 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 series of variables may be null or missing for some PDEs; for example, if the plan sponsor is waived from providing plan benefit information to CMS (e.g., employer direct plans, PACE plans), or if there was not a valid link between the plan appearing on the PDE and a plan ID in the CMS Health Plan Management System (HPMS). The version of HMPS data used in CCW is the end-of-the year snapshot. A small number of Part D contracts are terminated during the course of the year, and may not be captured in this annual source data file although the contract appears on the PDE.

- **Benefit Phase (BNFTPHAS)** – this is a CCW derived field that considers the plan benefit structure for each beneficiary, and indicates where in the benefit phase this PDE occurred. Please refer to the following illustration of the standard benefit phases:

Figure 1. Part D Standard Benefit Phases

## 2007 Standard Part D Benefit



The benefit phase determination for every Part D event is made by accumulating all of the PDE costs for the beneficiary to date, then by comparing the plan benefit structure for the beneficiary, the variable indicates whether the PDE occurred during the deductible, pre-ICL (initial coverage limit), ICL (or coverage gap), or catastrophic phase of coverage. This field differs somewhat from the information in the catastrophic coverage code field on the PDE (CATCOVCD) in that it has greater detail regarding the range of benefit phases available for most Part D plans. Note: since PDE data contained in the CCW represent “final action”, the catastrophic coverage code field in the PDE data may have occasional discrepancies in the timing of the “A” and “C” codes due to interim adjustments to individual PDE records (e.g., post-transaction modifications or deletion of PDE records may cause a change as to when a beneficiary reaches the attachment point or catastrophic threshold) or due to information lags between Part D sponsor for beneficiaries who switch plans (i.e., True Out-Of-Pocket [TrOOP] balance transfer issues).

The two-digit benefit phase variable uses intelligence for both digits. The 1<sup>st</sup> digit = benefit phase at the start of fill, 2<sup>nd</sup> digit = phase once the drug has been dispensed (e.g., DD indicates that the beneficiary was in the deductible phase of the benefit, DI indicates that this PDE occurred partly in the deductible phase – and partly in the initial coverage limit [ICL] phase). The two digits are necessary since the benefit phases depend on specific dollar amounts, which may not split exactly between prescription fills; that is, a particular PDE may “straddle” more than one benefit phase. It is possible that some non-standard combinations of benefit phases might appear, particularly if a beneficiary has changed plans during the year. CCW codes this benefit phase variable according to what the beneficiary’s plan benefit package indicates should have occurred at the time of the PDE fill in terms of accumulated costs based on date of service ordering. For a small number of beneficiaries, particularly those who made a plan change around the time of the fill, the benefit phase value may not be representative of the beneficiary experience at the point-of-sale. PDE variables may be obtained which indicate beneficiary payment experience at the time of the fill (e.g., patient pay amount [PTPAYAMT], gross drug cost [TOTALCST]).

- **Formulary variables** includes four utilization management (UM) formulary variables that plan sponsors are required to report to HPMS for the CMS formulary review process. Not all plans utilize a formulary or are required to submit a formulary to CMS (e.g., employer direct plans, PACE plans). When there is no formulary associated with the plan, values for these 4 UM variables represent the least restrictions on the drug possible (e.g., every drug is on Tier 1, the step therapy variable is blank, and the quantity limits and prior authorization variables = 0). CCW uses information from the approved Medicare formulary in HPMS, and based on the drug dispensed (i.e., the NDC on the PDE), determines the value for each of the following four variables:
  - 1) Tier (TIER\_ID) – on which drug tier the drug appeared according to the plan’s formulary tiers. In some rare cases, a plan may have erroneously listed a drug in more than one tier on the formulary. If this occurred, the CCW used the lowest tier to show how this was likely applied at the time of PDE dispensing. Some plans may have submitted a formulary with tiers, even though for cost sharing purposes each tier is treated the same. For this reason there may be some discrepancies between the TIER\_ID on the PDE and the TIER\_ID in the Plan Cost Sharing Tier File; typically this only occurred for plans with defined standard benefits.
  - 2) Step (STEP) - whether the drug was subject to step therapy according to the plan’s benefit structure. In some rare cases, a plan may have included a drug in more than one step therapy protocol on the formulary. If this occurred, the CCW used the maximum step value for the drug.
  - 3) Quantity Limits (QTYLMTYN) - whether the drug was subject to quantity limits according to the plan’s benefit structure. In some rare cases, a plan may have listed the same drug product under more than one reference (proxy) NDC on the formulary. If this occurred and there was conflicting information regarding whether the drug was subject to quantity limits or not, the CCW used the more restrictive status for the drug, indicating that the drug was subject to quantity limits.
  - 4) Prior Authorization (PRAUTHYN) - whether prior authorization was required for the drug. In some rare cases, a plan may have listed the same drug product under more than one reference (proxy) NDC on the formulary. If this occurred and there was conflicting information regarding whether the drug was subject to prior authorization or not, the CCW used the more restrictive status for the drug, indicating that the drug was subject to prior authorization.

Researchers may select either a Phase I file, or any combination of variables from the other three files (PDE, FDB and/or Event Characteristics). For every file, except the Phase I file, researchers must specifically request each variable desired, as part of the justification process. Pricing for the data file is based on the total number of variables requested (i.e., greater than or less than 15), as well as size of cohort (e.g., 250,000 beneficiaries, 1 million beneficiaries, etc). Data file layouts and descriptions for each variable can be found on the CCW website, within the Content and Documentation tab, under the CCW File Record Layouts heading.

## **E. Limitations**

The PDE differs from a “pharmacy claim” in several ways. Each PDE record is a summary record containing the final status of a drug claim sent by a pharmacy to a Part D sponsors accounting for any subsequent adjustments. Pharmacy claims rejected by the sponsor are not

included in PDE data. For example, if a pharmacy submits an original claim to a plan sponsor which is rejected due to a prior authorization requirement and later, when the prior authorization criteria are met, resubmits the claim which is accepted by the sponsor, the sponsor would then submit only one PDE record to CMS reflecting the final status of the accepted claim. Similarly, if a pharmacy submits a claim to a plan sponsor and then soon after reverses (cancels) the claim, the sponsor would not submit a PDE record to CMS. Additionally, since the PDE data in the CCW represent “final action”, all PDE adjustments received by CMS through the PDE submission deadline for payment reconciliation are accounted for in the data, including PDE adjustments, resubmissions, and deletions.

Not all drugs used by Part D enrolled beneficiaries are included in the PDE files. Data generally do not include Part D excluded prescription drugs (unless the plan covers excluded drugs as a supplemental benefit). Prescriptions obtained through a third party (e.g., VA) or those for which a claim is not submitted (e.g., if a beneficiary pays cash out-of-pocket) are not available. In addition, over-the-counter (OTC) drugs are excluded from Part D and typically are not included in the PDE files, unless they are part of an approved step therapy protocol.

There are several situations where Benefit Phase and UM values cannot be determined:

- The PDE is for a non-covered drug. In this situation the Benefit Phase value will be blank. If the drug is found in the plan’s formulary then the UM variables will be assigned based on the formulary values. Otherwise, the UM variables will be assigned “NA” if the drug is not found in the formulary.
- Due to special waivers, some organization types are not required to submit details of their drug benefit package (e.g. employer direct and PACE plans). The Benefit Phase value for PDEs associated with these plans will be “NA”.
- Some plans may not utilize or be required to submit a formulary to CMS as part of the plan/formulary approval process (e.g., PACE plans). PDEs occurring for beneficiaries enrolled in these types of plans will have the least restrictive values for each of the four utilization management variables.
- Plans waived from submitting plan benefit information but did submit formulary information (e.g., employer direct) will have “NA” assigned for Benefit Phase. UM variables will be assigned according to the plans submitted formulary.
- If the drug on the PDE is not found on the plan’s formulary, then all UM variables are assigned values of “NA”.
- If the plan information on the PDE cannot be linked to the HMPS plan information, the value of “XX” is applied for all five of the event characteristics variables.

### **Chapter 3 Part D Characteristics Files**

Researchers may also wish to request supplemental characteristics files to link to the PDE or denominator files. For example, characteristics files may include:

- prescription drug descriptors (e.g., First DataBank® brand name, generic name, dosage and form)
- pharmacy descriptors (e.g., type of pharmacy)
- plan characteristics (e.g., type of benefit/coverage for beneficiary)
- prescriber characteristics (e.g., type of prescribing provider).

Additional information regarding linkage of data files is contained in Chapter 5.

### **A. Drug Characteristics Supplemental Variables**

This supplemental set of supplemental variables, which are appended to the PDE file, contains four variables from the First DataBank® (FDB) reference file. Through a special licensing agreement, CCW is able to provide the brand name, generic name, strength, and form for the NDC code observed on the PDE. The NDC (which is populated in the product service ID [PRDSRVID] field in the PDE data) will appear on both the PDE and this characteristics file – and is NOT encrypted. Since the FDB reference file is one of several commercially available drug databases, it is possible that the NDC appearing on some PDEs may not have a match in this drug characteristic file; that is, not all NDCs which appear in the PDE will have cross-referenced information available in this file. It may be possible for researchers to find information regarding the NDC using another prescription drug database. Although described here separately for contextual purposes, if a researcher requests the FDB drug characteristics data, the four drug information variables will be automatically appended to the PDE data.

### **B. Plan Characteristics Files**

Part D plans (plan sponsors) are required to submit to CMS, via the Health Plan Management System (HPMS), particular information regarding the structure of the benefit offered to Medicare consumers. This information is intended to help CMS review plan benefits for compliance with requirements. Information covers the plan benefit for a calendar year (e.g., information must generally be submitted and approved by November of the year prior to the start of the new benefit year). PDPs must offer a basic prescription drug benefit. MA organizations must offer either a basic benefit or broader coverage for no additional cost. If this required level of coverage is offered, MA-PDs or PDPs, may also offer supplemental benefits under enhanced alternative coverage for a supplemental premium. Organizations offering drug plans have flexibility in the design of the prescription drug benefit packages, including the establishment of formularies. The benefit offered by plans may change each year; therefore researchers interested in examining multiple years of benefit information should consider treating these files as annual cross-sectional files (i.e., the same contract and plan IDs are associated with a different plan benefit structure, and may serve different geographic areas, every year).

Information regarding plan characteristics is contained in four files per year, which are easily joined together, and/or to the PDE file and denominator file, using the contract ID and plan ID. The four files which comprise plan characteristics include: 1) plan benefit package, 2) premiums, 3) cost sharing tiers, and 4) service area. Each of these files is described in greater detail, below.

Plan characteristic files are yearly files. Each year plans submit information to HPMS describing the benefit the plan offers – which may change annually. Researchers using multiple years of data should treat each annual file as a cross-sectional file. In addition, the variables in each year's data files can change from year to year, since the HPMS requirements for plans tend to evolve, in part because of the newness of the Medicare Part D benefit. The data in the annual plan files describe the way the benefit operated during the last month of the calendar year (as minor adjustments in the benefit might have occurred during the year). Variables that are the same from year to year have been named the same and every attempt has been made to

standardize the values of common variables. However, this was not always possible. Data dictionaries are provided for each annual set of plan characteristics files, and researchers should use caution when taking a longitudinal view of these plan characteristics, as there is variability in the content of these data files over time.

Within these files, there is at least one row for every distinct plan ID within a contract. A small number of plan IDs appearing in the PDE and Denominator Files will not be able to be linked to this characteristics plan file (note: this may occur on the rare occasion when a contract is discontinued mid-year; our source file is an end of the year file). All plans have only one row of data in the Plan Benefit Package File. Plans offering a different benefits in different geographic market areas, known as segments, (i.e., they have more than one segment ID [SGMT\_ID]) will have multiple rows of data in the Plan Premium, Plan Tier and Plan Service Area file. For these three files, there is a one-to-many relationship when merging with the PDE or plan characteristics files.

The plan characteristics data files are the same for all researchers. That is, the data are complete files which not limited to plans serving the beneficiaries covered in the researcher's data use agreement (DUA).

#### 1) Plan Benefit Package File

This file contains data regarding the type of drug benefit offered by the plan. Contents include information such as:

- whether plan enrollees receive a defined standard benefit (or an enhanced or alternative benefit),
- the type of plan (e.g., MA-PD, PDP; special needs, PACE [programs of all-inclusive care for the elderly] or employer plan),
- whether the plan is part of a demonstration project,
- whether the plan has a deductible or offers any coverage during the gap, and
- the types of drugs covered on each tier of the formulary for the benefit (e.g., generic only, or also brand)

Plan benefit information is available for every Part D plan with the exception of those offered by organization types that are not required to submit PBP information to CMS (i.e., via waivers) – these include PACE and employer direct plans.

#### 2) Plan Premium File

The Part D benefit allows for low-income beneficiaries to receive premium subsidies on a sliding scale, based on need. The Plan Premium File contains premium pricing information. Information in this file includes:

- basic pricing,
- premium amounts for enrollees who have a low-income subsidy, and
- whether the subsidy level is 25, 50, 75, or 100%

Plan premiums will vary by plan and contract, but also premiums may vary by *segment*, which constitutes a geographic service area covered by a particular benefit package. This Plan Premium data file contains a line of data for each contract, plan and segment.

Therefore, unless the researcher is interested in questions regarding a particular segment within the plan's benefit structure, it will generally be wise to aggregate this file into the

contract and plan level before merging with additional Part D files (i.e., there is a one-to-many relationship when merging with the Plan Benefit file or PDE file). When aggregating, researchers will need to decide how to best aggregate (or roll up) the plan pricing information within this file for their study, as a small number of plan premiums do vary by segment.

### 3) Plan Cost Sharing Tier File

Some researchers may wish to have detailed information regarding the various cost sharing options offered to consumers for each tier of the plan's formulary. Plans have tremendous variation with regard to their benefit offerings in terms of the number of tiers included in their formulary, what types of drugs are covered on each tier, whether the tier is classified as a specialty tier, and payment structure for drugs within each tier. To avoid construction of a researcher data file with an extremely large number of data fields, many of which are null for most plans, we constructed a standardized plan tier cost sharing data file – to allow for comparison of plans on several key dimensions of the benefit which may vary by tier. This file contains highly specific cost sharing information (co-payment amounts and co-insurance rates) for each tier along the dimensions of:

- benefit phase (i.e., pre- ICL, coverage gap [a.k.a. ICL], and catastrophic [post out-of-pocket threshold]),
- day supply amounts (i.e., one month supply, three months supply, and other), and
- type of pharmacy (e.g., in-network, out-of network, mail order, etc.)

This data file includes a row of data with cost sharing information for each tier within a plan's formulary (i.e., one row per CNTRCTID, PLAN\_ID, and TIER\_ID combination); therefore there will be a different number of rows for plans which use different numbers of tiers for their benefit. PACE and employer direct plans are not required to submit a plan benefit package for approval to CMS; therefore these types of plans will generally not have data within this file (note: while not mandatory, some waived plans may choose to submit this information; it will appear in this file if it was submitted to CMS).

There may be instances where the TIER\_ID value on the PDE exceeds the number of cost share tiers submitted by the plan through HPMS. The HPMS tier values are used to populate the CCW Plan Cost Sharing Tier File, whereas the TIER\_ID on the PDE comes from the formulary that the plan has submitted. A discrepancy between these two tier values may occur for defined standard plans, where there is no variation in the cost sharing by tier. A standard cost share is applied regardless of what tier the drug may appear on for the plan's formulary (i.e., the plan operates using standard Medicare Part D cost share amounts). Researchers may assume that the cost share information on the CCW Plan Characteristics Files for Tier 1 applies to all tiers.

### 4) Plan Service Area File

Some researchers may wish to understand the geographic areas covered by a particular plan's contract for a Part D benefit. This file contains information regarding the region, state, and county included in a plan benefit package service area.

This file contains a row of information for every contract and plan benefit package that is required to submit the information for plan approval (i.e., there is no information for plans waived from submitting this information, such as PACE and employer plans). Plans with segmented service areas (i.e., those which have multiple segment IDs [SGMT\_ID]) will have more than one line of data per CNTRCTID and PLAN\_ID combination in this file. The entire service area for a contract's plan can be determined by looking at the service areas for each market segment covered by the plan. Note that plan premiums also may vary by segment. The segment ID (SGMT\_ID) will be encrypted using the same key on the Premium file. Data for local MA-PDs, 1876 Cost plans, Private Fee-for-Service plans, and Demonstration Organization plans (i.e., "H" contracts) are listed by state and county, regional MA-PD plans (i.e. "R" contracts) are listed by MA-PD region and state, and PDP (i.e., "S" contracts) are listed by PDP region and state. For MA-PD or PDP regions that contain multiple states, a row is listed for each individual state within the region.

### **C. Pharmacy Characteristics File**

The objective of this file is to allow researchers to better understand the type of dispenser the pharmacy is (e.g., community/retail pharmacy, mail order, institutional pharmacy), the physical location of the pharmacy (i.e., state), and whether the pharmacy has a relationship with a common parent organization. Through a special licensing arrangement with the National Council for Prescription Drug Programs (NCPDP), CCW is able to provide researchers with this information.

Pharmacies participate with NCPDP in order to receive an industry-recognized pharmacy identifier that can be used for claims adjudication. As part of this relationship, pharmacies voluntarily report other information about their pharmacies such as other provider identification numbers (e.g., NPIs), location information, and type of pharmacy. The CCW Pharmacy Characteristics File is an end-of-year snapshot of the historical NCPDP data that is updated monthly. It only includes the information about the pharmacy in the historical NCPDP database at the end of the year. Changes throughout the year are not included.

The CCW Pharmacy Characteristics File is uniquely keyed by CCW Pharmacy ID (PHARM\_ID), which links with the CCW Pharmacy ID (referred to as the SRVC\_PRVDR\_ID in the CMS source data for these files) found in the PDE data. Occasionally, an event record will have a null CCW Pharmacy ID because a conclusive link could not be found between service provider identification number in the source PDE data and the provider identification numbers in the NCPDP source data. Usually the CCW Pharmacy ID represents a unique pharmacy entity, which historically was a retail store. However, as the pharmacy services industry has evolved, some retail stores have added other lines of business such as filling prescriptions for long term care facilities. In these cases, the pharmacy can ask NCPDP to issue them more than one identification number to keep the billing separate for their multiple lines of business.

The PHARM\_ID is a more refined and unduplicated version of SRVC\_PRVDR\_ID, because we use NCPDP to reconcile the different types of IDs a pharmacy may submit on the claim/PDE. The value-added purpose of the CCW-assigned PHARM\_ID is that it can be used to link to the

Pharmacy Characteristics File. This enables researchers to obtain descriptive information about the pharmacy.

#### **D. Prescriber Characteristics File**

The PDE contains information regarding the practitioner who prescribed the drug for the patient. The CCW prescriber ID (CCW\_PRSCRBR\_ID) may be linked to this look-up table, so that researchers interested in knowing more about the prescriber may do so. The objective of this file is to allow researchers to better understand the type of provider who prescribed the medication (e.g., type of provider and specialty).

The HCIda™ Prescriber Database is the primary source of information for this prescriber characteristics file. Through a special licensing arrangement with NCPDP, the CCW is able to provide researchers with this information.

HCIda™ obtains prescriber information from a variety of data sources, including the NPPES (National Plan and Provider Enumeration System, administered by CMS; assigns a unique NPI to each provider), DEA (Drug Enforcement Agency, data files known as the Controlled Substances Act Registrants), and SureScripts (a nationwide e-prescribing network). Using these input files, it is generally possible to identify a unique provider using an NPI, DEA number, and/or UPIN number. Note that there are a small number of instances where it was not possible to confidently identify a unique provider – however this occurred for less than 1% of the prescribers in the HCIda™ database.

A range of variables are collected, and different information may exist for providers at different points in time. CCW obtains monthly files from HCIda™, and has created a CCW provider history database, from which an annual CCW Prescriber Characteristics File is extracted. The annual CCW Prescriber Characteristics File includes information for all Part D prescribers from the yearly PDE file who are found in the HCIda™ files. It is possible, although rare, for a provider to have more than five different values for taxonomy, credentials and/or state during a year. When this occurred, CCW used the most frequently occurring information for the time frame. Providers self-selected their taxonomy codes in NPPES, and could designate a primary taxonomy code.

HCIda™ has limited their data files to those providers who are likely prescribers – i.e., not all NPIs from NPPES are included, rather the NPIs where taxonomy codes indicate a type of provider likely to have prescribing privileges. Organizational NPIs are generally not included.

Not all prescribers will have all of the data fields in the Prescriber Characteristics file populated (e.g., taxonomy code was not present for about 10% of providers). A description of the primary taxonomy code is provided in the data file. If researchers would like to append the descriptions for other taxonomy codes, they can obtain the National Uniform Claims Committee (NUCC) taxonomy descriptions from:

[http://www.nucc.org/index.php?option=com\\_content&task=view&id=14&Itemid=40](http://www.nucc.org/index.php?option=com_content&task=view&id=14&Itemid=40)

The CCW Prescriber Characteristics File is uniquely keyed by CCW Prescriber ID (CCW\_PRSCRBR\_ID), which links with the CCW Prescriber ID found in the PDE data. The Prescriber Characteristics File links to a prescriber in the PDE data file about 94% of the time, depending on the year of data used. Non-linkage would have occurred if the prescriber ID appearing on the PDE did not conform to a known NPI, DEA or UPIN format or if there was not a record for the prescriber in the HCidea files. An event record will have a negative CCW Prescriber ID value when a conclusive link could not be found between the prescriber identification number in the source PDE data and the prescriber identification numbers in the HCidea™ source data. Occasionally, a null value is present in the CCW Prescriber ID field. This occurs when the source PDE data does not contain a prescriber identifier. Usually the CCW Prescriber ID represents a unique individual prescriber (i.e., a prescribing provider), however, on 1-2% of events, an entity or organization may be the prescriber (e.g., a clinic or specialized unit of a hospital, or a student). The type of prescriber identifier found on the original PDE is indicated in the field called PDE\_PRSCRBR\_ID\_FRMT\_CD. This field indicates whether or not the Prescriber ID appearing on the PDE had an NPI, DEA or UPIN format.

#### **Chapter 4 CCW Part D Sample Population**

The CCW Part D data are available for services beginning January 1, 2006 through the most current year of Medicare data available. Researchers have tremendous flexibility to define a study cohort, as 100% of Part D enrollment and PDEs are loaded to CCW.

The standard CCW PDE file includes events for a random 10% or 20% of Medicare Part D beneficiaries, as well as the standard 5% Medicare sample. Not all Medicare beneficiaries have Part D coverage, as it is a voluntary benefit. However, all beneficiaries who are dually enrolled in Medicare and Medicaid have Part D coverage. The health status and prescription drug needs of beneficiaries enrolled in Part D may not be representative of all Medicare beneficiaries. In lieu of a random 10% or 20% sample, researchers may define their own study cohort or population of interest to be extracted from the PDE. Researchers may choose to select a sample using finder files of populations previously studied, cohorts of beneficiaries with certain conditions or treatment patterns, users of certain prescription drugs, or unique cohorts defined by the researcher.

The 20% sample includes those eligible and enrolled for Medicare Part D on or after January 1, 2006 through the most current period covered by the release, who had a Health Insurance Claim (HIC) number equal to the Claim Account Number (CAN) plus Beneficiary Identity Code (BIC) ( $HIC=CAN+BIC$ ) where the last digit of the CAN is either a 0 or 5. The 10% sample is a subset of the 20% sample, which includes Medicare Part D enrollees where the last 2-digits of the CAN are: 05, 20, 45, 70, 95, 10, 35, 60, 85, or 00.

Medicare beneficiary Health Insurance Claim numbers (HICs) are removed from the data files delivered to researchers (unless otherwise specified/approved in the Data Use Agreement). A unique CCW beneficiary identifier is included in each data file delivered as part of the output package, thus allowing linkage of an individual's data across data files. Additional details regarding the CCW beneficiary identifier can be found in Chapter 5 – Linkage of the CCW Data. If a researcher needs to obtain the HIC in order to link to outside data sources or extract claims not part of the CCW database, then the researcher must submit justification for this information

in the study protocol. The HIC to CCW beneficiary identifier crosswalk would be delivered as a separate file.

Requests for control populations or comparison groups should be made at the time of the initial data request. The inclusion/exclusion criteria for the control population should be specified by the researcher completing the data request form. The standard, modified standard, or custom definitions explained above for research populations can also be applied to control populations. Alternatively, the researcher can request a control population lacking in any particular drug use, if desired. Researchers can request a standard sample or customize the control population as needed. Specifications should include type(s) of data files, applicable drug codes, diagnosis or procedure codes or DRGs, time periods, and any related demographic selection criteria.

## **Chapter 5 Linkage of CCW Data and Data Limitations**

### **A. CCW Beneficiary Identifiers**

The unique CCW beneficiary identifier field is specific to the CCW (not applicable to any other identification system or data source). This identifier is encrypted prior to delivering the data files to researchers. In addition, all data files delivered to researchers are encrypted (see Encryption Information in Chapter 6 for details). Each research request employs a different encryption key for the beneficiary identifier field and the data files.

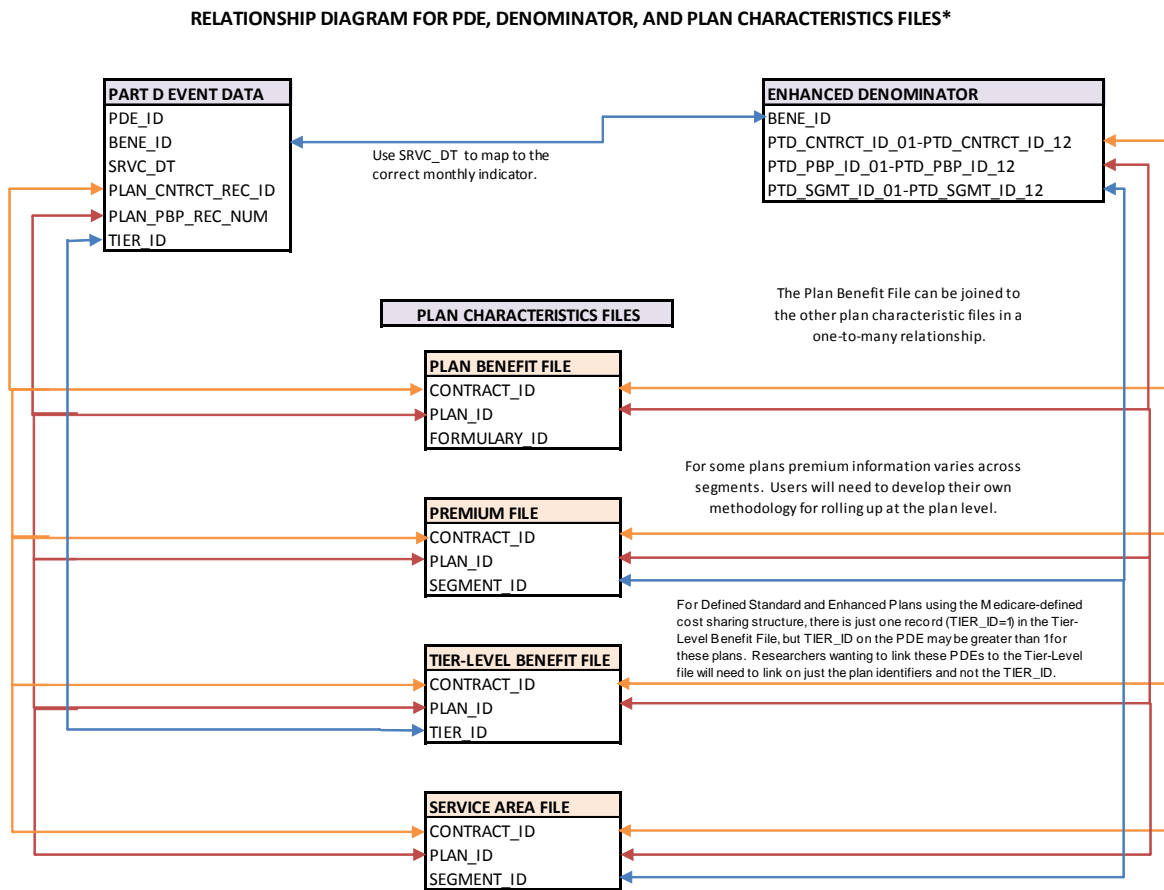
For each Medicare beneficiary enrolled and eligible for Medicare during the given time period, a unique CCW identifier provides a common link across all applicable types of data available. Based on the approved research request, the CCW data delivered may or may not include patient identifying information. Regardless of whether patient identifying information is included, the unique patient identifier provides researchers with the ability to analyze information across the continuum of care for a particular beneficiary or chronic condition cohort.

The unique CCW BENE\_ID is created from the Medicare unloaded enrollment database (EDB) file, using the EDB Link Number, HIC number, and other beneficiary identifiers (i.e., gender, SSN, date of birth). Analysis is performed to ensure that the beneficiary is not represented multiple times in the CCW HIC history table. If the beneficiary already exists in the CCW HIC history table, the table is updated with the new HIC information corresponding to the existing CCW BENE\_ID. If they do not already exist in the CCW HIC history table, the record will be added and the beneficiary will be assigned a new unique CCW BENE\_ID. All cross reference records for this beneficiary will be assigned this unique ID.

### **B. Part D Plan Identifiers**

Identifiers appearing in Part D characteristics data files are encrypted (e.g., contract ID, plan ID, and segment ID). Researchers may link to annual characteristics files to obtain information regarding important information regarding the benefit or the service provider. Please refer to Figure 1, below, for a schematic illustrating which data elements are key linkage fields for each Part D file.

Figure 2. Part D Files – Relationships and Linkage



\*See Part D User Manual for more specific guidance on file linkage.

### C. Data Limitations

There are certain expected anomalies in working with large, national, administrative datasets. Minimal data cleansing has occurred during processing of CCW Part D data. However, some of the known limitations of CMS or CCW data are described below. Furthermore, the Part D benefit began in 2006, and standardization of processes and data files has occurred over time (generally speaking, 2007 contain fewer anomalies than 2006 data).

Although Part D data exist for both managed care and fee-for-service enrollees – Medicare Part A and B claims are not available for beneficiaries enrolled in managed care plans. For researchers wishing to understand the relationship between clinical conditions and treatment utilization and drugs –the subset of beneficiaries with Medicare Parts A/B/D may be desired.

Some of the CCW data files may contain invalid values, or values not conforming to the valid values provided in the CCW supporting documentation. The CCW data files contain data as

received and processed from the original CMS processing source. Invalid values are processed, stored, and delivered as they are received. No modifications or conversions are made to “correct” for invalid variable values.


## Chapter 6 Content, Format, and Encryption of CCW Output Files

This section describes the content and format of the CCW Part D output package (the CCW data that are delivered to researchers). The files that are delivered to the researcher are organized in the following format. Descriptions of each of these items are detailed in the tables that follow.

<b>File</b>	<b>File Description</b>
readme_first_req000_2006.txt	This is a text file that describes the files contained in the output package. File Name Example: readme_first_req232_2006.txt
res000011111req000232_2006_PDE.exe	This is the executable that must be run to decrypt and uncompress the PDE data file. In this example, 11111 is the Data Use Agreement (DUA) number, 232 is the request number, and 2006 is the year of the data. This executable includes v6 and v8 SAS read-in programs, the .dat file, and .fts file which contains the layout and record counts.
res000011111req000232_2006_PTDNM.exe	This is the executable that must be run to decrypt and uncompress the Part D Denominator file. In this example, 11111 is the Data Use Agreement (DUA) number, 232 is the request number, and 2006 is the year of the data. This executable includes v6 and v8 SAS read-in programs, the .dat file, and .fts file which contains the layout and record counts.
<b>Plan Characteristics Files</b>	
plan_char_2006_encrypted.dat plan_char_2006_encrypted.fts plan_char_2006_encrypted_readin_v6.sas plan_char_2006_encrypted_readin_v8.sas	This set of files includes the plan benefit characteristic .dat (data) file, .fts (layout and record counts) file, and version 6 and 8 SAS read-in programs.
premium_2006_encrypted.dat premium_2006_encrypted.fts premium_2006_encrypted_readin_v6.sas premium_2006_encrypted_readin_v8.sas	This set of files includes the plan premium .dat (data) file, .fts (layout and record counts) file, and version 6 and 8 SAS read-in programs.
tier_2006_encrypted.dat tier_2006_encrypted.fts tier_2006_encrypted_readin_v6.sas	This set of files includes the plan cost share tier .dat (data) file, .fts (layout and record counts) file, and version 6 and 8 SAS read-in

File	File Description
tier_2006_encrypted_readin_v8.sas	programs.
service_area_2006_encrypted.dat service_area_2006_encrypted.fts service_area_2006_encrypted_readin_v6.sas service_area_2006_encrypted_readin_v8.sas	This set of files includes the plan service area .dat (data) file, .fts (layout and record counts) file, and version 6 and 8 SAS read-in programs.
<b>Pharmacy Characteristics Files</b>	
pharmacy_char_2006_encrypted.dat pharmacy_char_2006_encrypted.fts pharmacy_char_2006_encrypted_readin_v6.sas pharmacy_char_2006_encrypted_readin_v8.sas	This set of files includes the pharmacy characteristic .dat (data) file, .fts (layout and record counts) file, and version 6 and 8 SAS read-in programs.
<b>Prescriber Characteristics Files</b>	
prescriber_char_2006_encrypted.dat prescriber_char_2006.dat prescriber_char_2006.fts prescriber_char_2006__read_v8.sas	This set of files includes the pharmacy characteristic .dat (data) file, .fts (layout and record counts) file, and version 8 SAS read-in programs.

In addition to the specific data files the researcher requested, CCW includes a variety of resource files in the deliverable package. These files are described below.

File	Description
CCW Part D User Manual.pdf	An electronic copy of this document
CCW User Manual.pdf	A document describing the CCW Medicare Part A and B data.
Code Reference Sets.xls	Code lists for ICD-9 diagnosis and procedure codes, HCPCS codes, Revenue Center and other codes contained in the extracted files.
Decryption Instructions.pdf	This document contains instructions for decrypting/uncompressing the data files.
Shipping Package Insert.doc	Brief note to recipient.
Tips on Getting Started with Data.doc	Document containing some useful hints for beginning to work with the data files.
 File Record layouts	Folder contains variable listings for all CCW data file types. Also contains a sub-folder with corresponding data dictionaries.

The encryption technique for files extracted from the CCW uses PGP Command Line 9.0 with the Self-Decrypting Archive (SDA) method. This method builds a compressed, encrypted, password protected file using a FIPS 140-1/140-2 approved AES256 cipher algorithm. The SDA is built on the CCW production server, downloaded to a desktop PC, and burned to a CD, DVD, or USB hard drive depending on the size of the files.

After the data media is shipped to the researcher, the password to decrypt the archive is sent to the researcher by electronic mail. The password is specific to a Data Use Agreement (DUA). Therefore each researcher request will have a unique encryption. The password and the data media will never be packaged together. To decrypt the data files, the researcher will need to access the e-mail containing the decryption password. Detailed instructions for using this password are included with the data.

The CCW beneficiary identifier field (BENE\_ID) is specific to the CCW (not applicable to any other identification system or data source). All requested data are linked using this field. It is encrypted using a Buccaneer-developed cipher prior to delivery of data files to researchers. The PDE\_ID is also encrypted using the same cipher since these identifiers are also unique to a beneficiary. (These fields will not be decrypted upon receipt by the researcher. Rather it is intended that the encrypted BENE\_ID will be used by the researcher to link the data and the encrypted PDE\_ID will be used to identify records from the same claim). The cipher used is unique for each DUA and is determined at the time the data is requested. This key is then kept on file for future use if requested by a researcher and approved by CMS. A researcher may decide to stipulate in a new DUA that the data obtained must be linked to that obtained from a previous DUA. CMS will then evaluate and approve or disapprove the request. If approved, the data obtained from the CCW will be encrypted using the same cipher as the previous DUA allowing data from both requests to be linked. Encryption of plan identifiers (contract, PBP, segment, formulary) will not be DUA-specific. CCW Prescriber and Pharmacy IDs are not encrypted.

## **Chapter 7 Further Assistance with CCW Data**

The Research Data Assistance Center (ResDAC) offers free assistance to researchers using Medicare data for research. The ResDAC web site provides links to descriptions of the CMS data available, request procedures, supporting documentation, such as record layouts and SAS input statements, workshops on how to use Medicare data, and other helpful resources. Visit the ResDAC web site at <http://www.resdac.org> for additional information.

ResDAC is a CMS contractor and requests for assistance in the application, obtaining, or using the CCW data should first be submitted to ResDAC. Researchers can reach ResDAC by phone at 1-888-973-7322, e-mail at [resdac@umn.edu](mailto:resdac@umn.edu), or online at <https://resdac.oit.umn.edu/>.

In the event that a ResDAC technical advisor is not able to answer the question, the technical advisor will direct the researcher to the appropriate person at CMS or Buccaneer. If additional CMS data (data not available from the CCW) is required to meet research objectives, or the researcher has any questions about other data sources, the researcher should first visit the ResDAC website.

Buccaneer, A Vangent Company  
[www.ccwdata.org](http://www.ccwdata.org)  
Email: [CMSdata@vangent.com](mailto:CMSdata@vangent.com)  
Phone: 1-866-766-1915

**Appendix A**  
**List of Acronyms and Abbreviations**

CMS – Centers for Medicare & Medicaid Services; part of the U.S. Department of Health and Human Services which administers the Medicare program

CCW – chronic condition data warehouse; constructed by Buccaneer under contract with CMS; only source for researchers to obtain Medicare Part D data

DEA – drug enforcement agency; collects information regarding prescribers as part of the Controlled Substances Act (CSA)

EDB – enrollment database; master file at CMS which indicates Medicare eligibility and enrollment

ESRD – end stage renal disease

FDB - First DataBank®; proprietary database which may contains a wide variety of drug information; a subset of prescription drug descriptors are available along with the PDE file, through a special licensing agreement

FEHB – federal employee health benefits

HCIda™ – a prescriber database from NCPDP which contains a variety of prescriber information; CCW uses this vendor’s file as a primary source to describe the prescriber characteristics

HIC - Health Insurance Claim number; unique Medicare beneficiary identification number

HPMS - Health Plan Management System; CMS-owned database application which Part D plans are required to use to submit contract information, plan benefit package data, and formulary files for CMS approval for each benefit year

LEP – late enrollment penalty; premium adjustment added by Medicare for beneficiaries who enroll in the Part D benefit after a period of Part D eligibility with no other form of credible coverage

LIPS – low-income premium subsidy

LIS - low-income subsidy; provides assistance to certain low-income individuals to supplement the premium and cost-sharing (including deductibles and cost-sharing during the coverage gap) associated with the Part D benefit

MA-PD – Medicare Advantage Prescription Drug plan; managed care health and Part D drug coverage

MMA – Medicare Modernization Act of 2003

NCPDP – National Council for Prescription Drug Programs; CCW uses a data file product from this vendor to describe pharmacy characteristics. The HCIda prescriber database, used as a source for CCW prescriber characteristics, is also an NCPDP product.

NDC – national drug code; in the PDE record layout the variable is called the product service ID.

NPI – national provider identifier; CMS-required identification #

NPES – National plan and provider enumeration system; CMS system whereby providers apply for and maintain information regarding their NPI

OTC - over-the-counter drugs; medications which do not require a prescription – therefore will not appear in the PDE file

PACE - programs of all-inclusive care for the elderly

PDE - prescription drug event

PDP – prescription drug plan; stand-alone prescription drug plan (e.g., not offered as part of a managed care plan MA-PD)

PPO – preferred provider organization

QDWI - Qualified Disabled and Working Individual (eligibility category for state- reported dual eligible status)

QI - Qualifying Individual under a State’s Medicaid plan (i.e., a dually eligible Medicare/Medicaid beneficiary)

QMB - Qualified Medicare Beneficiary (eligibility category for state- reported dual eligible status)

RDS - Retiree Drug Subsidy

SAF - standard analytic file; term used to describe a CMS data product which meets certain standardized specifications, which vary by type of data file (e.g., Medicare Part D SAF versus Medicare inpatient SAF)

SLMB - Specified Low Income Medicare Beneficiary Specified Low Income Medicare Beneficiary

SNP – special-needs plans

SPAP - State Pharmaceutical Assistance Programs

SSI - Supplemental Security Income beneficiaries, as reported by states, indicates entitlement to Medicare and concurrent eligibility for a Title XIX benefit (i.e., Medicaid or a Medicare Savings Program)

TRICARE – Health insurance benefit offered through Department of Defense

UM - utilization management

VA – Veteran’s Administration