

Part D Event Derived Variables

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Overview of Derived Variables

- **Why created?**
- **Who creates?**
- **Which variables are derived and how?**

Frequently Repeated Acronyms

- **CCW – Chronic Condition Warehouse**
- **PDE – Prescription Drug Event**
- **HPMS - Health Plan Management System**
- **TrOOP – True Out of Pocket Spending**
- **ICL – Initial Coverage Limit**
- **OOPT – Out-of-Pocket Threshold**

Why are Derived Variables Needed?

- Due to Part D Federal Regulation, CMS is taking additional steps to safeguard beneficiary, pharmacy, and prescriber privacy and plans' commercially sensitive data.
- External researchers are not able to link PDE data to other files such as the Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information.

How Protecting Sensitive Data?

- **CMS will link PDE data to other databases to minimize the need to send identifiers for data linkage purposes. CMS will not release unencrypted beneficiary, plan, prescriber, or pharmacy identifiers.**
- **Event cost data elements (ingredient cost, dispensing fee, and sales tax) will be aggregated. Beginning in 2010, vaccine administration fee is included.**

CCW Part D Event Derived Variables

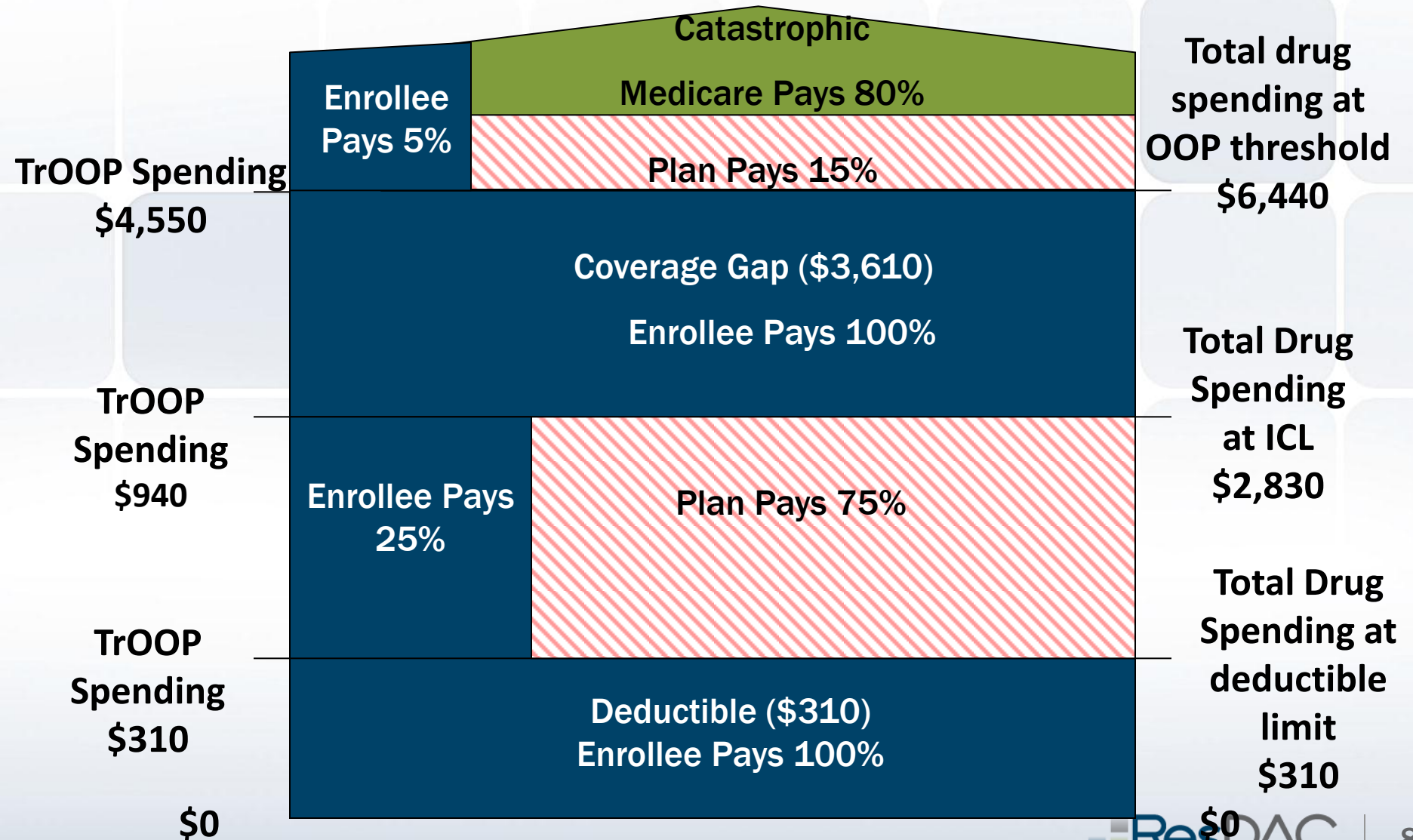
- **Buccaneer creates the CCW PDE Derived Variables to include in the PDE data.**
- **Gross Drug Cost**
- **Benefit Phase**
- **Prior Authorization Indicator**
- **Tier ID**
- **Quantity Limit Indicator**
- **Maximum Step Number**

CCW Part D Event Derived Variables

Location of variables

- **Part D Event File 2006 – 2009**
 - All derived variables
- **Part D Event File 2010**
 - Gross Drug Cost
 - Benefit Phase
- **Formulary File 2010 onward**
 - Prior Authorization Indicator
 - Tier ID
 - Quantity Limit Indicator
 - Maximum Step Number

Medicare Part D Standard Benefit, 2010



CCW PDE Derived Variables

Benefit Phase

Data sources

- **Part D Enrollment Data - the plan beneficiary selected**
- **CCW extract of plan information from CMS Health Plan Management System (HPMS)**
 - The type of organization (variables include plan type, org type, demo type)
 - The particular benefit structure for each plan (e.g., defined standard benefit; variables include amounts for deductible, ICL (Initial Coverage Limit) and OOPT (Out Of Pocket Threshold))
- **PDE data**
 - The benefit phase determination for every Part D event is made by accumulating all of the PDE costs for the beneficiary

CCW PDE Derived Variables

Benefit Phase

Overview of Methodology

For each beneficiary with covered Part D events:

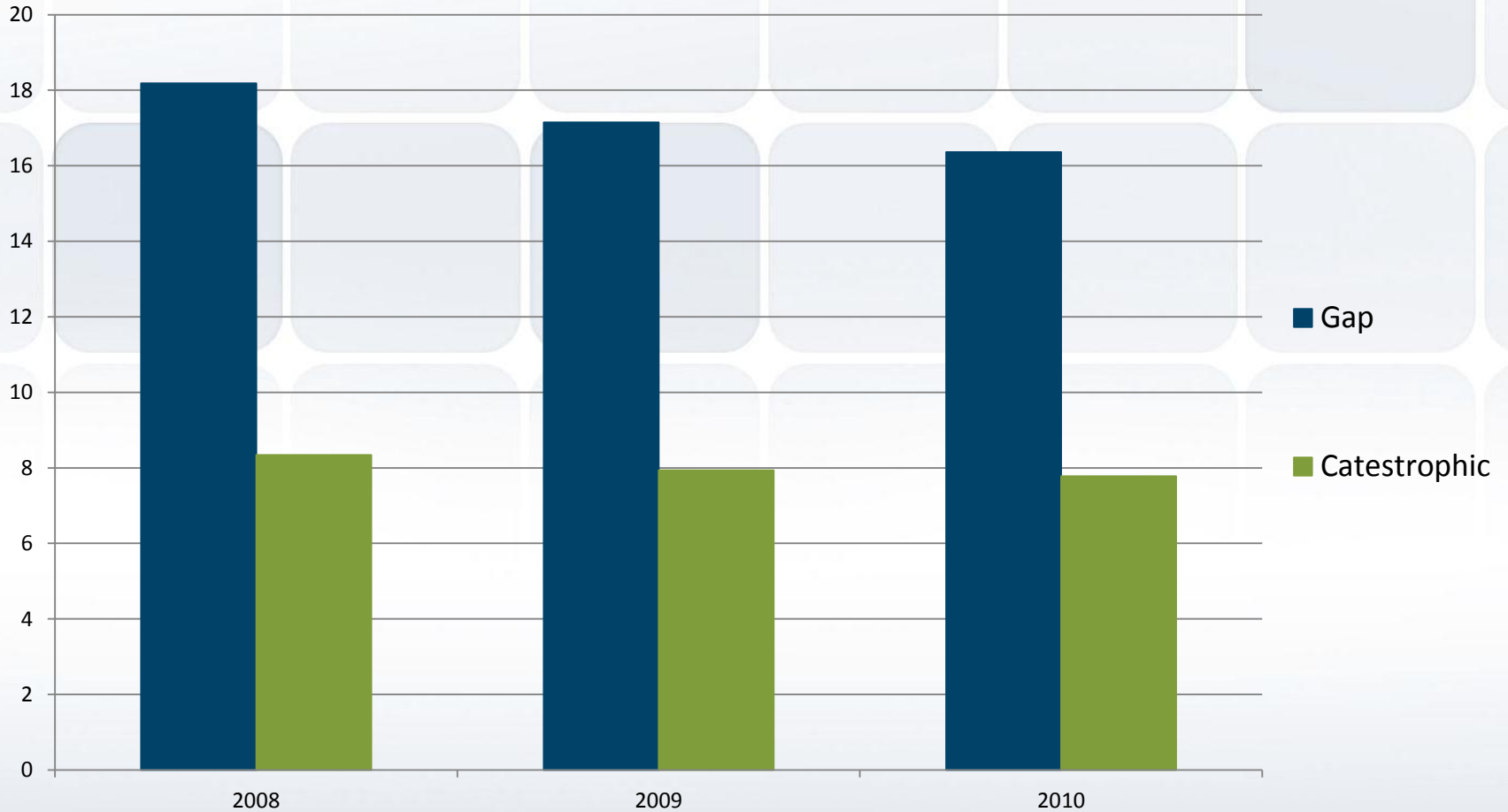
- 1.** Prescription drug events are sorted in service date order;
- 2.** Gross drug costs and true out-of-pocket costs (TrOOP) are accumulated;
- 3.** For each **covered** Part D event, the accumulated gross drug costs are compared to the deductible, ICL and TrOOP costs; and these are compared to OOPT and assigned a benefit phase value.

CCW PDE Derived Variables

Benefit Phase

Value	Description
blank	Event is for a non-covered drug as indicated by the Drug Coverage Status Code
XX	Contract and Plan ID on the PDE does not link to the Plan Characteristics File
NA	The plan on the event does not report benefit information.
DD	Deductible phase
DP	Straddle claim between the Deductible and Pre-ICL phases
DI	Straddle claim between the Deductible and ICL (Gap) phases
DC	Straddle claim between the Deductible and Catastrophic phases
PP	Pre-ICL phase
PI	Straddle claim between the Pre-ICL and ICL phases
PC	Straddle claim between the Pre-ICL and Catastrophic phases
II	ICL (coverage gap or “donut hole”) phase
IC	Straddle claim between the ICL and Catastrophic phases
CC	Catastrophic phase

CCW PDE Benefit Phase



CCW PDE Derived Variables

- **Describing experience with benefit structure**
 - **Considerations:**
 - » Some beneficiaries do not use any PDEs
 - » Some do not have plans that submit benefit structure information
 - » Not all plans offer the standard benefit
 - » Benefit Phase will be blank for those events with Drug Coverage Status of “E” or “O” (enhanced or over-the-counter)

PDE Variables of Medication Utilization Management

Utilization Management Variables

- **Indicate whether the product is subject to utilization management tools**
- **Derived from the formulary file**

Utilization Management Variables

- **Quantity limit:** plans limit the numbers (or amounts) of a drug in a given time period
- **Prior authorization:** preapproval is required before coverage
- **Step therapy (maximum step number):** specified drugs should be tried before moving to other drugs

Utilization Management Variables

- **Product-specific information within a plan**
- **PDE variables can be used to examine whether the level of utilization of a specific medication is influenced by the application of management tools**

Utilization Management Variables

- **Prior Authorization Indicator**
- **Tier ID**
- **Quantity Limit Indicator**
- **Maximum Step Number**
- **Data Sources**
 - **CMS Health Plan Management System (HPMS)**
 - **PDE Plan Contract and Benefit Package**
 - **Plan Formulary**
 - **Uses end-of-year snapshot**

CCW PDE Derived Variables

- **CCW is not able to match all event records to either a formulary or a plan benefit record.**
- **For these cases, the following derived variables will be found with values of NA or XX.**
- **NA = NDC does not link to formulary**
- **XX = Unable to link to plan**
- **About 4% of records fall into the NA or XX categories.**

CCW PDE Derived Variables

Prior Authorization Indicator Values

- **1 = The drug is subject to prior authorization**
- **0 = Either a) the drug is not subject to prior authorization or b) the plan is not required to submit a formulary so there are no restrictions on the drug**
- **About 1.25% of PDE records are identified as needing prior authorization**

CCW PDE Derived Variables

Tier ID Values

- **1-max = The tier on the plan's formulary associated with the drug on the PDE or if the plan is not required to submit a formulary then TIER_ID is assigned a value of '1'**

CCW PDE Derived Variables

Tier ID Values

- 01 66.19%
- 02 24.08%
- 03 05.27%
- 04 00.35%
- 05 00.10%
- 06 00.01%

CCW PDE Derived Variables

Quantity Limit Indicator Values

- **1 = The drug has quantity limits**
- **0 = Either a) the drug does not have quantity limits or b) the plan is not required to submit a formulary so there are no restrictions on the drug**
- **Approximately 25% of records indicated the event had quantity limits**

CCW PDE Derived Variables

Maximum Step Number Values

- **Blank** = Either a) the drug is not part of a Step Therapy Group or b) the drug is on Step 1 of a Step Therapy Group (i.e., not restricted) or c) the plan on the PDE is not required to submit a formulary, so there are no restrictions on the drug
- **2-max** = The maximum step on the plan's formulary associated with the drug on the PDE
- **Blank** ~94%
- **02** ~2%

Resources

- **CMS Guide to Requests for Medicare Part D Prescription Drug Event (PDE) Data**
- <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/Downloads/GuidePartDv3-3-17-09-2.pdf>
- **CCW Part D Data User Guide**
- http://www.ccwdata.org/cs/groups/public/documents/document/ccw_partddata_userguide.pdf