CY 2019 Medicare Plan Finder Out-of-Pocket Cost Estimates Methodology

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1. Introduction

To guide Medicare-eligible beneficiaries with health plan choices, the Center for Medicare & Medicaid (CMS) publishes Out-of-Pocket Cost (OOPC) estimates on the Medicare Plan Finder (MPF) available on the Medicare.gov website. Estimates are available for Medicare Advantage with Prescription Drug (MA-PD), Medicare Advantage Only (MA-Only), standalone Prescription Drug Plans (PDPs), Original Medicare (OM), and Medigap plans. These estimates are provided broken out by five specific health categories.[1]

To develop the OOPCs, a specific cohort of OM individuals from the Medicare Current Beneficiary Survey (MCBS) is defined. The claims and event data for this cohort are taken from two years of the survey (2013 and 2015) for use in the estimation process. These data are combined with Contract Year (CY) 2019 Plan Benefit Packages (PBPs) and submitted premiums to produce the estimates for the Medicare Advantage and Prescription Drug (MA-PD, PDP, and MA-Only). Original Medicare (and Medigap) plan calculations are then carried out in parallel with MA plans.

All PBP cost-share data are provided in 2019 dollars so the estimated costs from the MCBS must be inflated to 2019 as well. To inflate the OOPCs for Part C (non-prescription drug) service-specific inflation factors are used.[2] The Part D (outpatient drug) calculations apply average prices from the Medicare Prescription Drug Event (PDE) claims data.

This document describes the data source, general methodology, and algorithms developed to produce the estimates that populate the MPF OOPC database.

2. Selection of the MPF Cohort Based on the 2013 and 2015 MCBS

The variables in the 2013 and 2015 MCBS files are reviewed and used to develop an OM cohort for the MPF. The OM cohort provides the baseline from which the MPF OOPC database was developed. Appendix A provides a basic description and record counts for the MCBS files used.

2.1 Screening Process

The following screening criteria were used to establish the final cohort. As development of accurate out-of-pocket estimates requires the availability of all utilization during the year, beneficiaries who did not meet certain criteria ***were excluded*** from the final cohort:

1. Beneficiaries who did not complete at least one survey interview did not have sufficient information to be included in the final cohort;
2. Beneficiaries interviewed in a facility were excluded from the cohort due to potentially insufficient utilization data;
3. Beneficiaries, whose health status was missing, were excluded from the cohort because they could not be mapped into a health status category;

[1] For purposes of display on the MPF, only three of the health status groups are used: Excellent, Good, and Poor.

[2] These inflation factors are provided by the Office of the Actuary (OACT) at CMS (see Appendix C).

4. Beneficiaries who were not enrolled in Medicare Parts A and B for all twelve months in 2013 or beneficiaries who were not enrolled in Medicare Parts A and B for any time during 2015, or until death, were excluded from the cohort due to potentially insufficient utilization data;
5. Beneficiaries with one or more months of Medicare Managed Care enrollment were excluded from the cohort due to potentially insufficient utilization data;
6. Beneficiaries with a Medicare status of End-Stage Renal Disease (ESRD) were excluded from the cohort due to the inability to join an MA-PD or MA plan;
7. Beneficiaries with hospice utilization were excluded from the cohort because of uncertainties about their use of non-hospice services;
8. Beneficiaries who did not complete the entire survey were excluded from the cohort due to potentially insufficient data;
9. Beneficiaries with Veterans Administration (VA) insurance were excluded from the cohort due to potentially insufficient utilization data;
10. "Ghosts," or beneficiaries newly enrolled in Medicare in 2013 with claims and imputed survey data, were excluded from the cohort because they did not have sufficient prescription drug or dental usage information for the calculation of OOPCs. There was no "ghosts" in 2015 due to the MCBS data collection method change; and
11. Beneficiaries whose primary payer was not Medicare in 2015 were excluded from the cohort selection.

In contrast, beneficiaries who died during the year, but who met all other screening criteria, ***were included*** in the final cohort. Both Medigap and Medicare Advantage Organizations (MAOs) price their insurance based on the assumption that some beneficiaries will die during the year and have higher utilization than average. Therefore, beneficiaries who died during the year were included in the calculation of OOPCs.

2.2 Screening Results

The number of beneficiaries excluded from each cohort as a result of the screening criteria is provided in the following tables. The tables also show the weighted number of MCBS beneficiaries determined using appropriate MCBS sample weights.

Table 2.1 – Screening Results 2013 MCBS

Screening Criteria	Number of Beneficiaries Excluded	Weighted (Millions)	Percent Weighted
1. Beneficiaries who did not complete at least one survey interview	738	1.96	3.62
2. Beneficiaries interviewed in a facility	903	7.80	14.45
3. Beneficiaries with a health status other than Excellent, Very Good, Good, Fair, and Poor	781	2.15	3.99
4. Beneficiaries with less than 12 months of Part A/B enrollment	863	6.91	12.80
5. Beneficiaries with some MA-PD or MA coverage	5,109	26.47	49.07
6. Beneficiaries with ESRD status	105	0.46	0.85
7. Beneficiaries with one or more hospice payments	352	1.25	2.32
8. Beneficiaries with an incomplete survey	1,183	9.08	16.82
9. Beneficiaries with VA insurance	581	3.10	5.73
10.Ghost beneficiaries	727	7.08	13.12
Total number of beneficiaries excluded	7,063*	36.21	67.12
Total number of beneficiaries included	3,986	17.73	33.87
Total initial number of beneficiaries	11,049	53.94	100.0%

Table 2.2 – Screening Results 2015 MCBS

Screening Criteria	Number of Beneficiaries Excluded	Weighted (Millions)	Percent Weighted
1. Beneficiaries with a health status other than Excellent, Very Good, Good, Fair, and Poor	750	2.58	4.51
2. Beneficiaries without both Parts A and B enrollment	421	4.22	7.37
3. Beneficiaries with some MA-PD or MA coverage	3,886	23.78	41.54
4. Beneficiaries with ESRD status	76	0.31	0.54
5. Beneficiaries with one or more hospice payments	233	0.82	1.43
6. Beneficiaries with non-Medicare primary payer	187	1.33	2.32
7. Beneficiaries with VA insurance	30	0.07	0.12
Total number of beneficiaries excluded	5,583	33.11	57.83
Total number of beneficiaries included	4,396	24.14	42.17
Total initial number of beneficiaries	9,979	57.25	100.0%

*Note: Beneficiaries could have qualified for more than one screening criteria, in which case, the criteria used to screen beneficiaries from the final MPF cohort may NOT be mutually exclusive.

2.2.1 Final MPF Original Medicare (OM) Cohort

Of the 11,049 beneficiaries in the 2013 MCBS file, 3,986 were retained in the final cohort that populates the five health status—Excellent, Very Good, Good, Fair, and Poor—cells in the MPF OOPC database. Of the 9,979 beneficiaries in the 2015 MCBS file, 4,396 beneficiaries were used to populate the five health status cells in the OOPC database. Combined, the final FFS cohort thus consists of 8,382 beneficiaries. The following table shows the number of beneficiaries in the 2013/2015 OM cohort by health status.

Table 2.3 - 2013/2015 Original Medicare Beneficiaries in Cohort by Health Status

Health Status	Excellent*	Very Good	Good*	Fair	Poor*	TOTAL
Number of Beneficiaries	1,342	2,481	2,483	1,506	570	8,382

* Note: The three health status groups with the asterisks are used for display on the MPF.

Data for all 8,382 beneficiaries in the OM cohort was used to develop the baseline MPF utilization measures and OOPC estimates. According to past CMS analysis, the OM cohort is large enough to be nationally representative of the Medicare population in the MCBS (e.g., beneficiaries who are enrolled in both Parts A and B; beneficiaries who are not enrolled in managed care).

3. Development of Out-of-Pocket Cost (OOPC) Estimates

The following assumptions were made as a result of ongoing analysis of MCBS and PBP data, Medigap policies and plans, as well as CMS requirements to design and develop OOPC estimates for the MPF. These assumptions provide a baseline of the out-of-pocket design and development process and will be modified as the process is refined.

3.1 General Assumptions

1. Actual OOPC estimates are displayed in dollar values and dollar ranges through the MPF, based upon ranges established by CMS.
2. OOPC estimates are displayed as "Monthly" and "Annual," and were calculated based on the number of months enrolled for each beneficiary in the cohort.
3. MCBS events and claims for the designated cohort were reviewed to develop the beneficiaries' utilization measures and to estimate OOPCs.
4. MCBS sample weights were applied to each of the beneficiaries included in the final MPF cohort as part of the development of the OOPCs for Original Medicare, Medigap plans, and MA-PD or MA plans.
5. Mean OOPCs for each plan were produced for each health status. Where OOPCs for persons with chronic illnesses are displayed, costs for all beneficiaries—not just those in a specific health group—were produced.
6. The 2013 and 2015 costs for Carrier events were inflated to 2019 costs using Berenson-Eggers Type of Service (BETOS) code inflation factors; all Healthcare Common Procedure Coding System (HCPCS) within a BETOS code are inflated by that same BETOS rate. These inflation factors were provided by the Office of the Actuary (OACT).
7. Long-term care costs were not included in the development of the OOPC estimates.
8. Skilled Nursing Facility (SNF) services were included in the development of the OOPC estimates.

3.2 Assumptions Related to the Calculation of Original Medicare Out-of-Pocket Cost Estimates

1. Beneficiaries enrolled in OM do not have any insurance other than Medicare.
2. Beneficiaries go to providers who accept Medicare assignment (i.e., no balance billing).
3. The MPF includes OOPC estimates for some non-Medicare-covered benefits (i.e., drugs and dental services).
4. The MPF uses the MCBS total costs for utilization of non-Medicare-covered services in selected event files (i.e., dental services).
5. Total OOPCs are equal to the monthly Part B premium amounts for a year, plus the sum of out-of-pocket costs for Inpatient Hospital, SNF, Drugs, Dental, Outpatient, Home Health, Carrier, and Durable Medical Equipment (DME) service categories.
6. The OM calculation applies Medicare-defined deductibles, copayments, and premiums to MCBS reported utilization using PBP-defined variables.

3.3 Assumptions Related to the Calculation of MA-PD or MA Out-of-Pocket Cost Estimates

1. Where applicable, the MPF used the PBP cost shares for in-network services to calculate OOPC estimates for benefits.
2. If the PBP cost sharing used coinsurance (i.e., percentages), the coinsurance basis is the reported MCBS Total Amount.
3. The costs for Optional Supplemental benefits were not included in the calculation of OOPCs.
4. Information collected in the PBP Notes fields is not included in the calculation of OOPCs.
5. Utilization of Outpatient services, Carrier services, and DME benefits was mapped into a PBP service category based on the information provided on the bill. In most instances, services that occurred on the same day and appeared to be related were linked together into a single benefit.
6. The MPF calculation applies the service-category deductibles to annualized costs.
7. For benefits with a minimum and maximum cost share, the minimum cost sharing amount was used to calculate the OOPC estimate.
8. For categories offering a copay or coinsurance, the minimum value of the range for each is used and then the resulting number is summed to calculate the OOPC estimate.
9. The calculation of the deductible seeks to reflect how managed care programs operate in practice. The calculation of the category cost is the sum of the portion of any relevant plan or category-level deductible and the subsequent copayment and/or coinsurance amounts.[3] Any plan-level deductible which includes one or more categories is allocated proportionately based on the ratio of the spending in a given category to the total spending across the relevant categories. As such, the deductible amount is not produced nor displayed in MPF as a standalone value. Where there is both a category and plan-level deductible, the plan-level deductible takes precedence.[4]
10. If a plan indicates that there is a service-category specific maximum enrollee out-of-pocket amount, then the calculated MA-PD or MA cost for that category was compared to the service category specific maximum, and the lesser of the two was used as the OOPC. For example, if the beneficiary's calculated OOPC for lab services totals $600, but the plan limits the enrollee's OOP cost to $500, then the OOPC estimate uses the $500 rather than the $600.
11. The plan-level maximum enrollee out-of-pocket amount for both In-Network Medicare and Non-Medicare services was included in the calculations. The calculated MA-PD or MA cost for the overall plan or subset of PBP service categories was compared to the appropriate plan-level maximum, and the lesser of the calculated cost or the maximum was used as the OOPC. For example, if the beneficiary's calculated OOPC for all services except prescription drugs and dental services totals $1,300, but the plan-level maximum enrollee out-of-pocket amount limits the OOP cost for all services except prescription drugs and dental services to $1,000, then the plan OOPC estimate equals the $1,000 limit plus the service-category specific costs for drugs and dental services. This calculation was applied to Medicare only or all benefits, as designated by the plan. If a separate maximum amount was indicated for Medicare only benefits, then this amount was compared to the costs for Medicare only benefits, and the lesser of the two was used.

[3] For plans with a deductible that applies to both in- and out-of-network services such as an HMOPOS or network PFFS plan, then the in-network deductible is used in the calculations. PPO plans with a deductible are required to offer annual deductible that is used in the calculations. PPOs are not allowed to separate in-network deductibles but may offer differential deductibles. For the purposes of the OOPC calculations for PPOs, any differential deductible for a single category will be treated as an in-network category level deductible.

[4] When the plan level deductible has been met, the individual category deductibles are no longer relevant.

12. For MA Medical Savings Account Plans, it is assumed that the CMS annual contribution amount is used towards meeting the deductible, and then the remainder (if available) is applied to Medicare eligible expenses (non-covered inpatient or SNF care, dental, and/or prescription drugs). Cost shares for Medicare-covered services are zero once the deductible is met.
13. If a service/benefit is covered by Medicare ("allowed"), then it was included in the calculation. If a service/benefit is not covered by Medicare ("denied"), then it was excluded from the calculation.
14. OOPCs are not estimated for National PACE (Programs of All-Inclusive Care for the Elderly), Medicare-Medicaid Plan, Employer/Union Only Direct Contract, Point of Sale (POS) Contractor, and Dual Eligible Special Needs Plan (SNP).
15. MA plans with Medicare-defined benefits have calculations carried out identically as for the OM plan.
16. Dental utilization information about individual services (e.g., number of cleanings, exams, x-rays, fillings, root canals, etc.) is absent from the data for the MCBS survey year 2013. Without counts of dental services, the dental OOPC estimates, which can be fairly large as a percentage of total OOPCs, could not be produced for MAO plans that offer these supplemental benefits. The total dollar value for each dental visit provided by the 2013 MCBS survey continues to be used for estimating dental costs for the Original Medicare plan and MAO plans that do not offer supplemental dental benefits. This dollar value is also used to calculate costs by applying it to dental coinsurance percentages, as applicable. The imputation method used previously (2018) was modified for 2019 for MCBS 2013 data. This approach may be referred to as "ghosting." Here, the distribution of service patterns within each combination of sample weights and spending is produced. Then combinations of services are randomly selected from a recent year of complete data (2011) within these groupings. In other words, a particular combination of services from a "donor" 2011 record was applied to a given 2013 beneficiary based upon the available beneficiary-level information. The available information is the total dental cost amount and beneficiary survey weight. The advantage of this "ghosting" approach over the previous method is that it explicitly takes into the sample weights which reflect demographic (and other) characteristics. And, by randomly assigning the full patterns of utilization, (1) conditional probabilities are taken into account and (2) non-fractional utilization flags (rather than fractional) estimates are produced thus better representing "real" data. The 2015 MCBS survey data contained all dental services so that above imputation was not necessary.

    Since inception, the OOPC model code has divided total costs into preventive and comprehensive allocations for the purposes of allocating cost sharing based simply on the counts of preventive and comprehensive services, respectively. Beginning in 2018, a new assignment method was instituted that relies upon historical (MCBS) cost information (spending for a single service) to determine the dollar allocations between preventive and comprehensive dental OOPCs. Estimating this cost split is necessary because the survey does not report dollar amounts by type of service.

3.3.1 Service Category Specific Assumptions for Calculation of Out-of-Pocket Cost Estimates

Inpatient Hospital

The calculation of the OOPC estimate for the Inpatient Hospital-Acute and Inpatient Hospital-Psychiatric Service Category benefits were based on the following assumptions:

1. Each event in the MCBS Inpatient Hospital Events (IPE) file is considered one hospital stay.
2. MCBS events with a source of "Survey only" are excluded from the analysis.
3. Inpatient Hospital-Psychiatric stays were identified using the Provider Number on the claim.
4. Inpatient Hospital-Psychiatric costs were calculated as separate categories in the MA-PD or MA OOPC estimates.
5. The MCBS Total Expenditures are equal to the total charge for the hospital stay.
6. Total Days were calculated as the Discharge Date minus the Admission Date. If the dates are the same, then Total Days are equal to one.
7. The MCBS Utilization Days were defined as the covered days (1-90) during a benefit period and any MCBS lifetime reserve days used during that stay.
8. Medicare-covered Days were calculated as Utilization Days minus the Lifetime Reserve Days.
9. Additional Days were calculated as Total Days minus the Utilization Days.
10. If Utilization Days were greater than zero, then the stay was considered Medicare covered.
11. If Additional Days were equal to zero, then the entire stay was considered Medicare covered.
12. Lifetime reserve days were considered Medicare covered under OM, but were priced as Additional Days or Non-Covered Days under MA.
13. Plan Maximum Additional Days were covered by the plan (but not by Medicare) and designated as unlimited days or as a specified number of days.
14. If Utilization Days are equal to zero, then the entire stay was considered non-covered and the non-covered cost was equal to the Total cost.
15. Non-Covered Days are equal to Additional Days minus the Plan Maximum Additional Days.

The MA-PD or MA calculation of the OOPC estimate for the Inpatient Hospital Service Category benefits is defined according to the following algorithms:

1. If the Maximum Enrollee OOPC amount was designated for a period other than a per-stay cost, then it was converted to an annual cost.
   - If the Plan Benefit Package (PBP) periodicity is the benefit period, then it was assumed that the 90-day period is quarterly and it was multiplied by four.
2. If the Maximum Enrollee OOPC amount was based on a per-stay cost, then the annual out-of-pocket expenses were equal to the Maximum Enrollee OOPC multiplied by the Number of Stays (i.e., events).
3. For Medicare-covered stays, the cost shares were calculated in the following manner:
   - The Copay per Stay amount was added to the total of the Copay per Day multiplied by the Number of Medicare-covered Days; and/or
   - The Coinsurance Percent per Stay was multiplied by the Total Amount, and added to the total of the Coinsurance Percent per Day multiplied by the Amount per Day (equal to the Total Amount divided by the Total Number of Days), and then multiplied by the Number of Medicare-covered Days.

4. For Additional Days, the cost shares were calculated in the following manner:
   - The Number of Additional Days was multiplied by the Additional Days Copay per Day; and/or
   - The Number of Additional Days was multiplied by the Additional Days Coinsurance Percent per Day, which was then multiplied by the Amount per Day for Additional Days (the number of days must be less than or equal to the Number of Plan Maximum Additional Days).
   - The Copay per Day for Additional Days was multiplied by the Number of Additional Days; and/or
   - The Coinsurance Percent per Additional Days was multiplied by the Amount per Day and then multiplied by the Number of Additional Days.
5. For Non-Covered Stays, if the benefit is not Mandatory, the total cost was calculated in the following manner:
   - The Number of Excess Non-Covered Days was multiplied by the Amount per Day.
6. For Non-Covered Stays, if the benefit is Mandatory, the cost shares were calculated in the following manner:
   - The Copay per Stay, plus the Copay per Day multiplied by the Number of Days; and/or
   - The Coinsurance Percent per Stay multiplied by the Total Amount, plus the total of the Coinsurance Percent per Day multiplied by the Amount per Day multiplied by the Number of Days.
7. Out-of-pocket expenses are equal to the Total Non-Covered Costs (including deductible) plus the minimum of either:
   - The Total Cost calculated using the Per Stay Amount plus the Per Day Amount; or
   - The Maximum Enrollee OOPC.

Prescription Drugs

The calculation of OOPC estimate for the Part D outpatient drug category is based on the following assumptions and procedures. Appendix B provides a detailed listing of the key Medicare policy parameters used in the calculations for MA-PD and PDP drug plans.

1. Each event in the 2013 and 2015 MCBS PME (Prescribed Medicine Events) file is considered one drug prescription. MCBS drug prescriptions for 2013 are adjusted using data provided the Office of the Actuary (OACT) summarizing survey underreporting of drug prescription counts to estimate total drug usage in 2019.[5]
2. Map the name of each drug linked to appropriate National Drug Code (NDC). To associate the MCBS drugs to NDC, a master list of drug names and their NDC is first created using two commercial sources of data—First DataBank (FDB) and Medispan. Then, each MCBS prescription drug name is mapped to one or more NDC via this master list. For MCBS drug prescription records that cannot be matched by name but can be linked to Prescription Drug Event (PDE) data, the NDC found on the PDE record is used. Drugs are identified on Part D sponsor formularies using nomenclature and unique identifiers known as RxNorm concept unique identifier codes or RXCUIs. Each RXCUI on the formulary reference file (FRF) that is used to

[5] The prescription utilization adjustment for 2013 MCBS data includes an initial underreporting adjustment and subsequent adjustments for increased usage up to the estimate year of 2019. The 2013-2019 utilization adjustment is: 1.25.

build plan formularies is associated with a related NDC. MCBS drugs are mapped to these RXCUIs using an NDC-RXCUI crosswalk.

3. Drugs that could not be mapped to an NDC (and thus to an RXCUI code) were considered over-the-counter, non-prescription drugs and their costs were not included in OOPCs.
4. An average price for each RXCUI is calculated using the 2017 and /2018 (year-to-date) PDE claims data which contains information on every prescription submitted for payment under the Part D program. The average price is calculated as the total gross expenditure [ingredient cost + dispensing fee + taxes + vaccination fee (if applicable)] divided by the number of PDE, or prescriptions for that drug. Once the MCBS prescription record has been linked to a drug name, RXCUI, and average price, it is mapped to each plan's formulary and benefit package to obtain the drug cost sharing information. In instances where a drug event has been mapped into multiple RXCUIs and, therefore, is possibly covered on more than one tier, the RXCUI(s) associated with the lowest cost tier is (are) assigned to the event for that plan. If the RXCUI that represents an MCBS drug is not on a plan's formulary, this drug is assumed to be non-covered and the full cost, as reflected by the average price, and added to a plan's OOPC value. Generic substitution is assumed such that when a generic version of a brand drug exists and is covered on the plan's formulary, the generic version is the one included in the calculations provided it has lower cost-sharing. However, therapeutic substitution (e.g., drugs in the same therapeutic class) is not assumed. In addition, Food and Drug Administration (FDA) drug approval information was utilized to determine the applicable or non-applicable status of MCBS drugs for purposes of coverage gap cost sharing estimates. This data creation process results in a file that includes the total cost of the drug for each MCBS beneficiary and prescription as well as the each plan's associated cost sharing structure for that drug.
5. Using each plan's drug coverage status of the MCBS drugs and PBP-based cost sharing information (deductible, initial coverage limit, copayments and/or coinsurance, gap coverage, etc.), the beneficiary's OOPC are calculated. The calculations are done according to the type of Part D plan (Defined Standard, Basic Alternative, Actuarially Equivalent, or Enhanced Alternative) and the associated cost share structure. The calculations are based upon the assumption that each prescription is for a one-month (30-day) supply of drugs (rather than the 60- or 90-day) from an In-Network Pharmacy. In the event that both a preferred and a standard pharmacy exists, the calculations are based on the preferred pharmacy cost-sharing.
6. The OOPC calculations sort the drugs and assign cost sharing at the various thresholds (deductible, ICL, catastrophic). That is, the prescriptions are reviewed sequentially, with each plan's cost sharing structure used through each phase (e.g., pre-ICL, gap, and post-ICL). The copayments are used directly in calculations of costs; the coinsurance amounts are determined by multiplying the coinsurance percentage by the full cost of the drug from the PDE data. As noted earlier, throughout the processing, the lowest cost sharing amount available for a given MCBS drug is used. If there is more than one matched RXCUI on a low cost tier, for a given drug name, the model uses the median of the RXCUIs' prices (grouped by applicable vs. non-applicable) to determine the total cost of each drug (and if applicable, the coinsurance). Additional plan features are also incorporated into the calculations, such as Free First Fill for selected drugs, mandatory gap coverage (both the standard benefit for generic and brand drugs and the coverage gap discount program for applicable drugs) and additional gap coverage offered for full and/or partial tiers.
7. For MA plans that do not offer a Part D benefit (MA-Only plans), the calculation is identical to that provided for Original Medicare beneficiaries not participating in the Part D program. This

calculation applies 2017/2018 PDE average prices to MCBS prescription counts to calculate a total non-covered drug cost.

8. The beneficiary level OOPC values are then aggregated to the health status level (across all beneficiaries in the data set) using the individual MCBS sample weights in order to yield nationally representative data. The annual costs are adjusted for enrollment to yield average monthly costs.

Dental

The calculation of the OOPC estimate for the Dental Service Category benefits was based on the following assumptions.

1. Each event in the MCBS Dental Events (DUE) file was considered to be one visit.
2. All DUEs in this file were considered to be non-Medicare-covered.
3. Each DUE is mapped to a PBP dental benefit, and the appropriate benefit cost share is applied:
   - Exam = Oral Exam;
   - Filling = Restorative;
   - Root Canal = Endodontics;
   - Extraction = Extraction;
   - Periodonture = Periodontics;
   - Crown, Bridge, Ortho, and Other = Prosthodontics, other oral/maxillofacial surgery other services;
   - Cleaning = Cleaning;
   - X-rays = X-rays; and
   - Other = Prosthodontics, other oral/maxillofacial surgery other services.
4. If the plan offers dental benefits as a Mandatory benefit, then the PBP copay and coinsurance cost sharing amounts were applied to the appropriate utilization.
5. If the plan's dental benefit was an Optional benefit, or if the plan did not offer a dental benefit (i.e., it is missing in the PBP data), then the total charge is equal to the Total Expenditures.
6. Preventive Dental benefits include oral exams, cleanings, and X-rays.
7. Comprehensive Dental benefits include restorative, endodontics, and prosthodontics.
8. If an event includes more than one Dental service, then the cost per service equals the Total Amount, divided by the number of services.
9. If a plan does not cover a particular Dental service (e.g., cleaning), then the cost of that service equals the calculated cost per service.
10. If the plan has a Maximum Enrollee Cost amount for Preventive Dental services, then the beneficiary cost equals the minimum of the sum of the non-Medicare-covered costs or the Maximum Enrollee Cost Amount.
11. If the plan has a separate Maximum Enrollee Cost amount for Medicare-covered dental services, then the beneficiary cost equals the minimum of the sum of the Medicare-covered dental costs or the Maximum Enrollee Cost Amount.
12. If there was no Maximum Enrollee Cost amount, then the beneficiary cost is equal to the sum of the Preventive and Comprehensive Dental costs.

Skilled Nursing Facility (SNF)

The calculation of the OOPC estimate for the SNF Service Category benefits was based on the following assumptions.

1. Each event in the MCBS Skilled Nursing Home Utilization file was considered a SNF stay.
2. MCBS events that have a source of "Survey only" were excluded from the analysis.
3. The MCBS Total Expenditures equal the total charge for the SNF stay.
4. Total Days were calculated as the Discharge Date minus the Admission Date. If the dates were the same, then Total Days equal one.
5. The MCBS Utilization Days were defined as covered days (1-100) during a benefit period.
6. Medicare-covered Days were calculated as Utilization Days.
7. Additional Days were calculated as the Total Days minus the Utilization Days.
8. If Utilization Days were greater than zero, then the stay was considered Medicare covered.
9. If Additional Days were equal to zero, then the entire stay was considered Medicare covered.
10. Plan Maximum Additional Days are days that are covered by the Plan (but not Medicare), and were designated by the plan as Unlimited Days or a plan specified number of days.
11. If Utilization Days equal zero, then the entire stay was considered non-covered and the non-covered cost equals the Total Cost.
12. Non-covered days equal Additional Days minus the number of Plan Maximum Additional Days.

The MA-PD or MA calculation of the OOPC estimate for the SNF Service Category benefits was defined according to the following algorithms:

1. If the Maximum Enrollee OOPC is not a per-stay cost, it was converted to an annual cost.
2. If the Maximum Enrollee OOPC is based on per stay, then the annual out-of-pocket expenses equal the Maximum Enrollee OOPC, multiplied by the Number of Stays.
3. For Medicare-covered Stays, if Utilization Days are greater than zero, then the cost shares were calculated in the following manner:
   - The Copay per Stay plus the Copay per Day multiplied by the Number of Medicare-covered Days; and/or
   - The Coinsurance Percent per Stay was multiplied by the Total Amount, and added to the total of the Coinsurance Percent per Day multiplied by the Amount per Day (equal to the Total Amount divided by the Total Number of Days) multiplied by the Number of Medicare-covered Days.
4. For Additional Days, the cost shares were calculated in the following manner:
   - The Number of Additional Days was multiplied by the Additional Days Copay per Day; and/or
   - The Number of Additional Days was multiplied by the Additional Days Coinsurance Percent per Day, and then multiplied by the Amount per Day.
5. For Additional Days, if Additional Days are less than or equal to the Number of Plan Maximum Additional Days, then the cost shares were calculated in the following manner:
   - The Copay per Day for Additional Days was multiplied by the Number of Additional Days; and/or
   - The Coinsurance Percent per Additional Day was multiplied by the Amount per Day, and then multiplied by the Number of Additional Days.
6. For Non-Covered Stays, if the benefit is not Additional or Mandatory, then the total cost was calculated in the following manner:

- The Number of Excess Non-Covered Days was multiplied by the Amount per Day.

7. For Non-Covered Stays, if the benefit is Additional or Mandatory, then the cost shares were calculated in the following manner:
   - The Copay per Stay plus the Copay per Day multiplied by the Number of Days; and/or
   - The Coinsurance Percent per Stay was multiplied by the Total Amount, and added to the total of the Coinsurance Percent per Day multiplied by the Amount per Day, and then multiplied by the Number of Days.
8. Out-of-Pocket expenses equal Total Non-Covered Costs (including deductible), plus the minimum of either:
   - The total cost calculated using the per stay amount plus the per day amount; or
   - The Maximum Enrollee OOPC.

4. Utilization-to-Benefits Linking Approach

The conceptual approach for linking MCBS data to the services/benefits in the PBP is based on the understanding that the majority of MA-PD or MA organizations cost their benefits and services based on the Type of Service and/or the Place of Service. For the purpose of estimating OOPCs, this has been referred to as a "Day-Door Theory." This theory assumes that all the benefits/services received by a beneficiary when he/she enters a "single door" (i.e., the facility or location where the services are provided) on a single day are bundled together for a single copay amount (e.g., an outpatient surgery, that includes lab tests and X-rays, would all be provided for a single copay amount.

The following steps represent the basic approach taken to link claims and/or line items in the DME, Outpatient, and Carrier file to PBP services/benefits. This approach does not apply to Dental or Prescription Drug event files where the linking was self-contained to specific procedures or records. In the case of the Dental event file, procedure-based dental events were linked to PBP services/benefits with little difficulty. Prescription Drugs were also independent of the line item-to-PBP linking approach; it was assumed that there is one record per drug event.

The approach for linking utilization-to-PBP services/benefits includes the following steps:

1. All of the utilization files (Outpatient, Carrier, Home Health, and DME) were subset to include only the records for the beneficiaries in the MPF cohort.
2. The claims in the Outpatient file were a subset based on the specifications provided below and assigned to each applicable PBP service/benefit.
   - All claims were assigned based on Bill Type code or Revenue Center code, depending upon prioritization (e.g., Bill Type code is equal to Ambulatory Surgical Center; Revenue Center code is equal to Emergency Room).
3. The line items in the DME file were subset based on the specifications provided below and assigned to each applicable PBP service/benefit.
   - All line items were assigned based on the BETOS code (e.g., BETOS code is equal to Hospital bed).
4. The line items in the Carrier file were subset based on the specifications provided below and assigned to each applicable PBP service/benefit.
   - All line items were assigned based on one or more BETOS codes (or HCPCS/CPT code), Physician Specialty Codes, Service Type, and/or Place of Service, depending upon prioritization.
5. All other line items that occur on the same date were extracted.
6. The entire set of same day line items were reviewed to:
   - Identify and map line items to the specified Service Category (e.g., Ambulance);
   - Identify and map related line items that occurred on the same day and were bundled into the same service, but for which no separate MA-PD or MA cost will be calculated;
   - Identify and map line items to another PBP Service Category (e.g., all line items that fall within the admission and discharge dates for an Inpatient Hospital stay and where PLACE OF SERVICE code is equal to Inpatient Hospital will be bundled into the PBP 1a - Inpatient Hospital Service Category); and
   - Determine if any line items should be reclassified.
7. The mapping identification for each line item in the file was maintained.

8. The analysis by Service Category was repeated to map all possible line items. Line items were reclassified, as required.

4.1 PBP Service Categories to DME Line Item Mapping

The following PBP services/benefits were addressed as part of this analysis: Durable Medical Equipment (DME), Prosthetics/Orthotics, Medical Supplies, Other Medicare Part B Drugs, and Medicare Part B Chemotherapy Drugs. The mappings for these PBP services/benefits (the number in the parentheses identifies the PBP service category) to line items in the DME file are presented in this section.

Durable Medical Equipment (DME) (11a)

All line items where the BETOS code is equal to "Hospital Beds," "Oxygen and Supplies," "Wheelchairs," "Other DME," or "Enteral and Parental" were mapped to the Durable Medical Equipment (DME) (11a) service category.

Prosthetics/Orthotics (11b)

All line items where the BETOS code is equal to "Orthotic Devices" were mapped to the Prosthetics/Orthotics (11b) service category.

Medical Supplies (11bs)

All line items where the BETOS code is equal to "Medical/surgical supplies," "Oncology-other," or "Lab tests – glucose" were mapped to the Medical Supplies (11bs) service category.

Other Medicare Part B Drugs (15m)

All line items where the BETOS code is equal to "Other Drugs" were mapped to the Other Medicare Part B Drugs (15m) service category. The cost share for Medicare-covered Part B non-chemotherapy drugs was used.

Medicare Part B Chemotherapy Drugs (15c)

All line items where the BETOS code is equal to "Chemotherapy Drugs" were mapped to the Medicare Part B Chemotherapy Drugs (15c) service category. The cost share for Medicare-covered Chemotherapy drugs was used.

4.2 PBP Service Categories to Outpatient Claim Mapping

The following PBP services/benefits were addressed as part of this analysis: Ambulance Services, ASC Services, Emergency Care/Post-Stabilization Care, Dialysis Services, Hearing Exams, Urgently Needed Services, Outpatient Therapeutic Radiological Services, Outpatient Diagnostic Radiological

Services, Outpatient X-Ray Services, Outpatient Lab Services, Outpatient Diagnostic Procedures/Tests, Primary Care Physician (PCP) Services, Mental Health Specialty Services, Psychiatric Services, Physician Specialist Services, Occupational Therapy (OT) Services, PT and)/SP Services, Outpatient Hospital (included Observation Services), Cardiac Rehabilitation Services, Pulmonary Rehabilitation Services, Diabetes Self-Management Training, Medical Supplies, and Other Medicare Part B Drugs. The mapping of claims in the Outpatient file to the PBP service/benefit categories is done according to a particular order (not displayed) of priority.

Ambulance Services (10a)

Outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Ambulance" were mapped to the Ambulance Services (10a) category.

ASC Services (9b)

All claims where the BILL TYPE code is equal to "Ambulatory Surgical Center (ASC)" were mapped to the Ambulatory Surgical Center (ASC) (9b) service category. In addition, outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Ambulatory surgical care" were mapped to the ASC Services (9b) category.

Emergency Care/Post-Stabilization Care (4a)

Outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Emergency Room" or "Trauma Response" were mapped to the Emergency Care/Post-Stabilization Care (4a) service category.

Dialysis Services (12)

All claims where the BILL TYPE code is equal to "Clinic ESRD-Hospital Based," "Lab-Non-Routine Dialysis," or "Hemodialysis" were mapped to the Dialysis Services (12) category.

Hearing Exams (18a)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Audiology" were mapped to the Hearing Exams (18a) service category.

Urgently Needed Services (4b)

Outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Clinic-Urgent Care Clinic" or "Free-Standing Clinic-Urgent Care" were mapped to the Urgently Needed Services (4b) category.

Outpatient Therapeutic Radiological Services (8b2)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Radiology-Therapeutic," "Nuclear Medicine-Therapeutic," or "Other Therapeutic Services" were mapped to the Outpatient Therapeutic Radiological Services (8b2) category.

Outpatient Diagnostic Radiological Services (8b1)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Computed Tomographic (CT) scan," "MRT/MRI," "Magnetic Resonance Technology (MRT)," "MRT/MRA," "Positron Emission Tomography (PET)," "Nuclear Medicine," "Radiology Diagnostic," or "Other Imaging Services" were mapped to the Outpatient Diagnostic Radiological Services (8b1) category.

Outpatient X-Ray Services (8b3)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Radiology Diagnostic-Chest x-ray" were mapped to the Outpatient X-Ray Services (8b3) category.

Outpatient Lab Services (8a2)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Laboratory" or "Laboratory Pathological" were mapped to the Outpatient Lab Services (8a2) category.

Outpatient Diagnostic Procedures/Tests (8a1)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "EKG/ECG," "EEG," "Cardiology," "Other Diagnostic Services," or "Respiratory Services" were mapped to the Outpatient Diagnostic Procedures/Tests (8a1) service category.

Primary Care Physician (PCP) Services (7a)

All claims where the BILL TYPE code is equal to "Clinic-Rural Health," "Clinic - Federally Qualified Health Centers (FQHC)," "Clinic-Community Mental Health Centers (CMHC)," or "Clinic-Freestanding" were mapped to the Primary Care Physician (PCP) Services (7a) category.

Further, any previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Clinic," "Free-standing clinic," "Preventative Care Services - General," "Treatment or Observation Room," or "Professional Fees" were mapped to the Primary Care Physician (PCP) (7a) service category.

Mental Health Specialty Services (7e)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Medical Social Services" or "Behavior Health Treatment/Services" were mapped to the Mental Health Specialty Services (7e) category.

Psychiatric Services (7h)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Clinic-Psychiatric" or "Behavior Health Treatment/Services" were mapped to the Psychiatric Services (7h) category.

Physician Specialist Services (7d)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Oncology" or "Professional Fee" were mapped to the Physician Specialist Services (7d) category.

Occupational Therapy (OT) Services (7c)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Occupational Therapy" were mapped to the Occupational Therapy Services (7c) category.

PT and SP Services (7i)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Physical Therapy" or "Speech Language Pathology" were mapped to the PT and SP Services (7i) category.

Outpatient Hospital (9a)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Operating Room Services – General Classification," "Operating Room Services – Minor Surgery," or "Operating Room Services – Other Operating Room Services" were mapped to the Outpatient Hospital (9a1) service category. Other outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Gastro-Intestinal (GI) Services," "Cardiology—Cardiac Cath Lab," or "Lithotripsy" were mapped to the Outpatient Hospital (9a1) service category.

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Treatment or Observation Room-Observation Hours" were mapped to the Outpatient Hospital Observation (9a2).

Cardiac Rehabilitation Services (3c)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Other Therapeutic Services - Cardiac Rehabilitation" were mapped to the Cardiac Rehabilitation Services (3c) category.

Pulmonary Rehabilitation Services (3p)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Pulmonary function - general classification" or "Pulmonary function-other" were mapped to the Pulmonary Rehabilitation Services (3p) category.

Diabetes Self-Management Training (14e)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Other Therapeutic Services - Education/Training" were mapped to the Diabetes Self-Management Training (14e) service category.

Medical Supplies (11bs)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Medical/surgical supplies" were mapped to the Medical Supplies (11bs) service category.

Other Medicare Part B Drugs (15m)

All previously-unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to "Drugs requiring specific identification" were mapped to the Other Medicare Part B Drugs (15m) service category.

4.3 PBP Service Categories to Carrier Line Item Mapping

The mapping of the Carrier to PBP services/benefits is addressed as part of this analysis. The methodology for linking Inpatient Hospital and SNF events to line items in the Carrier file is based on matching the line item last expense date with the Inpatient/SNF Admission and Discharge dates. These benefits/services were considered part of the Inpatient stay, and thus did not generate a separate cost under Medicare Advantage.

The methodology for linking Outpatient services/benefits to line items in the Carrier file includes selecting all related line items for Outpatient claims mapped to each designated PBP category; that is, line items that occurred on the same day as the Outpatient bill and are related to the service/benefit. These line items were bundled under the designated Outpatient service/benefit.

Outpatient data is used to identify whether some Carrier line items are associated with facilities, such as inpatient hospital or SNF. If the Carrier line items are associated with facility then they are mapped or bundled under appropriate facility related service category.

For the remaining line items that do not link to Inpatient Hospital, SNF, or Outpatient claims, the mapping methodology for these PBP services/benefits to line items in the Carrier file is implemented by using four criteria; place of service, type of service, physician specialty, and BETOS (or HCPCS/CPT) code. This section summarizes the mapping by PBP category.

Inpatient Hospital - Acute (1a) and Inpatient Hospital - Psychiatric (1b)

1. All line items where the Date of the Service is on or within the Inpatient event Admission and Discharge dates that match psychiatric records if provider is Psychiatric Hospital or the PLACE OF SERVICE code is equal to "Inpatient Psychiatric Facility" or "Inpatient Comprehensive Rehabilitation Facility" were bundled under Inpatient Hospital - Psychiatric.
2. All line items where the Date of the Service is on or within the Inpatient event Admission and Discharge dates that match inpatient records if provider is NOT Psychiatric Hospital or the PLACE OF SERVICE code is equal to "Inpatient Hospital" or "ER-Hospital" were bundled under Inpatient Hospital - Acute.

SNF (2)

All line items where the Date of the Service is on or within the SNF event Admission and Discharge dates and the PLACE OF SERVICE code is equal to "SNF" were mapped or bundled under the SNF category.

Emergency Care/Post-Stabilization Care (4a)

All line items that occurred on the same day, where the PLACE OF SERVICE is equal to "ER" were mapped or bundled under Emergency Care/Post-Stabilization Care.

Urgently Needed Services (4b)

All line items that occurred on the same day visit, where the PLACE OF SERVICE is equal to "Urgent Care Facility" were mapped or bundled to the Urgently Needed Services category.

Primary Care Physician (PCP) Services (7a)

1. All line items that occurred on the same day as an Outpatient Clinic (independent or rural health) visit, excluding the "Billing Clinical Laboratory" were bundled under the PCP Services category.
2. **a)** All line items where the BETOS code is equal to "Office Visit (e.g., new or established)" or "Consultations," and where the PHYSICIAN SPECIALTY code is equal to "General Practice," "Family Practice," "Internal Medicine," or "Geriatric Medicine" were mapped as a PCP Services office visit.

b) All other line items that occurred on the same day (i.e., related items) for a PCP and BETOS code is NOT equal to "Chemo Therapy" were bundled under the PCP office visit.

3. All line items where the PHYSICIAN SPECIALTY code is equal to "General Practice," "Family Practice," "Internal Medicine," or "Geriatric Medicine" were bundled under the PCP Services office visit.

Chiropractic Services (7b)

1. All line items where the PHYSICIAN SPECIALTY code is equal to "Chiropractic" were mapped as a Chiropractic Services visit.
2. All other line items that occurred on the same day (i.e., related items) for Chiropractic were bundled under the Chiropractic Services visit.

Occupational Therapy (OT) Services (7c)

1. All line items where the PHYSICIAN SPECIALTY code is equal to "Occupational Therapist" were mapped as an Occupational Therapy Services visit.
2. All other line items that occurred on the same day (i.e., related items) for an Occupational Therapist were bundled under Occupational Therapy Services.

Physician Specialist Services (7d)

1. **a)** All line items where the PHYSICIAN SPECIALTY code is NOT equal to "Non-physician Practitioner/Supplier/Provider Specialty," "General Practice," "Family Practice," "Internal Medicine," Geriatric Medicine," "Chiropractic," "Podiatry," "Psychiatry," "Geriatric Psychiatry," or "Neuropsychiatry" were mapped as a Physician Specialist Services office visit.
   b) All other line items that occurred on the same day (i.e., related items) for a Specialist and BETOS code is NOT equal to "Chemotherapy" were bundled under the Physician Specialist Services office visit.
2. All previously unmapped line items where the BETOS code is equal to "Oncology – Other" and PLACE is equal to "Office" and TYPE OF SERVICE is NOT equal to "Therapeutic Radiology" were mapped as a Physician Specialist Services office visit.

Mental Health Specialty Services (7e)

1. All line items that occurred on the same day as an Outpatient Mental Health visit, where the PHYSICIAN SPECIALTY code is equal to "Psychologist," "Clinical Psychologist," or "Licensed Clinical Social Worker" are bundled under the Outpatient Mental Health Specialty Services visit.
2. All previously unmapped line items where the PHYSICIAN SPECIALTY code is equal to "Psychologist (billing independently)," "Clinical Psychologist," or "Licensed Clinical Social Worker" were mapped as a Mental Health Specialty Services visit.
3. All other line items that occurred on the same day (i.e., related items) for Psychologist were bundled under the Mental Health Specialty Services visit.

Podiatry Services (7f)

1. **a)** All line items where the BETOS code is equal to "Office Visit (e.g., new or established)," "Nursing Home Visit," or "Home Visit," and where the PHYSICIAN SPECIALTY code is equal to "Podiatry" were mapped as a Podiatry Services office visit.
   b) All other line items that occurred on the same day (i.e., related items) for Podiatry were bundled under the Podiatry Services office visit.
2. **a)** All previously unmapped line items where the BETOS code is equal to "Major Procedures," "Minor Procedures," "Ambulatory Procedures," "Endoscopy," or "Specialist," and where the PHYSICIAN SPECIALTY code is equal to "Podiatry" were mapped as a Podiatry Services office visit.
   b) All other line items that occurred on the same day (i.e., related items) for Podiatry were bundled under the Podiatry Services office visit.
3. All previously unmapped line items where the PHYSICIAN SPECIALTY code is equal to "Podiatry" were mapped as a Podiatry Services office visit.

Other Health Care Professional (7g)

a) All line items where the PHYSICIAN SPECIALTY code is equal to "Non-physician Practitioner" were mapped as an Other Health Care Professional office visit.
b) All other line items that occurred on the same day (i.e., related items) for these Physicians were bundled under the Other Health Care Professional office visit.

Psychiatric Services (7h)

1. **a)** All line items where the BETOS code is equal to "Office Visit (e.g., new or established)," "Consultations," "Hospital Visit," "Nursing Home Visit," "Home Visit," "Major Procedures," "Minor Procedures," or "Specialist," and where the PHYSICIAN SPECIALTY code is equal to "Psychiatry," "Geriatric Psychiatry," or "Neuropsychiatry" were mapped as a Psychiatric Services office visit.
   b) All other line items that occurred on the same day (i.e., related items) for a Psychiatrist were bundled under the Psychiatric Services office visit.
2. All previously unmapped line items where the PHYSICIAN SPECIALTY code is equal to "Psychiatry," "Geriatric Psychiatry," or "Neuropsychiatry" were mapped as a Psychiatric Services office visit.

PT and SP Services (7i)

1. All line items where the PHYSICIAN SPECIALTY code is equal to "Speech Language Pathologists" or "Physical Therapist" were mapped as a PT and SP Services visit.
2. All other line items that occurred on the same day (i.e., related items) for this Physical Therapy (PT) were bundled under the PT and SP Services visit.

Outpatient Diagnostic Procedures/Tests (8a1)

1. All previously unmapped line items where the BETOS code is equal to "Other Tests" were mapped as an Outpatient Diagnostic Procedures/Tests.

2. All line items where the BETOS code is equal to "Minor Procedures" or "Major Procedures" and the PHYSICIAN SPECIALTY code is equal to "Independent Diagnostic Testing Facility (IDTF)" were mapped as an Outpatient Diagnostic Procedures/Tests.
3. All line items where the BETOS code is equal to "Office Visits-New" and the SPECILTY CODE is equal to "Independent Diagnostic Testing Facility (IDTF)" and the SERVICE TYPE is equal to "Diagnostic Laboratory" were mapped as an Outpatient Diagnostic Procedures/Tests.

Outpatient Lab Services (8a2)

1. All previously unmapped line items where the PHYSICIAN SPECIALTY code is equal to "Clinical Lab (Billing Independently)" were mapped as an Outpatient Lab service.
2. All previously unmapped line items where the BETOS code is equal to "Lab Tests" and PLACE OF SERVICE is "Independent Laboratory" were mapped as an Outpatient Lab service.
3. All previously unmapped line items where the BETOS code is equal to "Local codes" and the SERVICE TYPE is equal to "Diagnostic Laboratory" were mapped as an Outpatient Lab service.
4. All line items where the SERVICE TYPE is equal to "Diagnostic Laboratory" were mapped as an Outpatient Lab service.

Outpatient Diagnostic Radiological Services (8b1)

1. All line items that occurred on the same day as an Outpatient "complicated" X-ray visit, where the BETOS code is equal to "Standard Imaging," "Advanced Imaging," "Echography," or "Imaging/Procedure" were mapped or bundled under the Outpatient Diagnostic Radiological Services (8b1) visit.
2. All line items where the SERVICE TYPE is equal to "Diagnostic radiology" were mapped as Outpatient Diagnostic Radiological Services.

Outpatient Therapeutic Radiological Services (8b2)

1. All line items that occurred on the same day as an Outpatient Radiation Therapy visit, where the BETOS code is equal to "Oncology" were bundled under the Outpatient Therapeutic Radiological Services visit.
2. All previously unmapped line items where the TYPE OF SERVICE code is equal to "Therapeutic Radiology" were mapped as an Outpatient Therapeutic Radiological Services visit.

Outpatient X-Ray Services (8b3)

1. All line items that occurred on the same day as an Outpatient X-ray visit, where the BETOS code is equal to "Standard Imaging" were mapped or bundled under the Outpatient X-ray Services visit.
2. All previously unmapped line items where the BETOS code is equal to "Standard imaging" were mapped as an Outpatient X-ray Services visit.

Outpatient Hospital (9a)

1. All line items that occurred on the same day as an Outpatient Hospital visit where PLACE OF SERVICE is equal to "Outpatient Hospital" and TYPE OF SERVICE is equal to "Surgery" were mapped as an Outpatient Hospital service.
2. All other line items that occurred on the same day (i.e., related items) as the Outpatient visit were bundled under the Outpatient Hospital visit.

ASC Services (9b)

1. **a)** All line items where the BETOS code is equal to "Major Procedures," "Minor Procedures," "Ambulatory Procedures," "Endoscopy," "Eye Procedure," "Anesthesia," or "Specialist," and where the PHYSICIAN SPECIALTY code is equal to "Ambulatory Surgical Center" were mapped as an ASC visit.
   b) All other line items that occurred on the same day (i.e., related items) as the ASC visit were bundled under the ASC visit.
2. All previously unmapped line items where the BETOS code is equal to "Undefined" and the PLACE OF SERVICE is "Ambulatory Surgical Center" and the PHYSICIAN SPECIALTY code is equal to "Ambulatory Surgical Center" were mapped as an ASC visit.

Ambulance Services (10a)

1. All line items that occurred on the same day as an Outpatient ambulance service, where the PHYSICIAN SPECIALTY code is equal to "Ambulance Service Supplier," or the PLACE OF SERVICE code is equal to "Ambulance-Land" or "Ambulance-Air or Water," or the SERVICE TYPE code is equal to "Ambulance" were bundled under the Ambulance Services Land (10a1) or Air (10a2).
2. All previously unmapped line items where the PHYSICIAN SPECIALTY code is equal to "Ambulance Service Supplier," or the PLACE OF SERVICE code is equal to "Ambulance-Land" or "Ambulance-Air or Water," or the SERVICE TYPE code is equal to "Ambulance" were mapped as an Ambulance Services Land (10a1) or Air (10a2).

Medical Supplies (11bs)

1. All line items where the BETOS code is equal to "Medical Supplies" were mapped as a Medical Supplies benefit.
2. All line items where the BETOS code is equal to "Medical Supplies" and the PLACE OF SERVICE is equal to "Office" and the PHYSICIAN SPECIALTY code is equal to "Podiatry" and the SERVICE TYPE code is equal to "Lump Sum Purchase of DME" were mapped as a Medical Supplies benefit.

Dialysis Services (12)

1. All line items that occurred on the same day as an Outpatient Dialysis visit, where the BETOS code is equal to "Dialysis services" were bundled under Dialysis Services.
2. All previously unmapped line items where the BETOS code is equal to "Dialysis Services" were mapped as a Dialysis Services.

Immunizations (14a)

Influenza

1. Medicare policy is that the copay for influenza immunizations is equal to $0.
2. All line items where the BETOS code is equal to "Influenza Immunizations" were mapped to the Immunizations (14a) service category.

Pneumococcal

1. Medicare Policy is that the copay for pneumococcal immunizations is equal to $0.
2. All line items where the SERVICE TYPE code is equal to "Pneumococcal/Flu Vaccine" were mapped to the Immunizations (14a) service category.

Medicare Part B Chemotherapy Drugs (15c)

a) All line items where the BETOS code is equal to "Chemotherapy" were mapped as Medicare Prat B Chemotherapy Drugs.
b) All other line items that occurred on the same day (i.e., related items) for Chemotherapy were bundled under Medicare Part B Chemotherapy Drugs.

Other Medicare Part B Drugs (15m)

a) All previously unmapped line items where the BETOS code is equal to "Other drugs" were mapped as an Other Medicare Part B Drugs benefit.
b) All other line items that occurred on the same day (i.e., related items) for "Other drugs" were bundled under the Other Medicare Part B Drugs category.

Comprehensive Dental (16b)

1. **a)** All line items where the BETOS code is equal to "Office Visit (e.g., new or established)" and where the PHYSICIAN SPECIALTY code is equal to "Oral Surgery (Dentists Only)" were mapped as a Comprehensive Dental office visit.
   b) All other line items that occurred on the same day (i.e., related items) for Oral Surgery (Dentists Only) were bundled under the Comprehensive Dental office visit.
2. **a)** All previously unmapped line items where the BETOS code is equal to "Major Procedures," "Minor Procedures," or "Ambulatory Procedures" and where the PHYSICIAN SPECIALTY code is equal to "Oral Surgery (Dentist only)" were mapped as a Comprehensive Dental office visit.
   b) All other line items that occurred on the same day (i.e., related items) for Oral Surgery (Dentists Only) were bundled under the Comprehensive Dental office visit.
3. All previously unmapped line items where the PHYSICIAN SPECIALTY code is equal to "Oral Surgery (Dentists Only)" were mapped as a Comprehensive Dental office visit.

Eye Exams (17a)

a) All line items where the BETOS code is equal to "Office Visit (e.g., new or established)," "Consultations," or "Specialist – ophthalmology," and where the PHYSICIAN SPECIALTY code is equal to "Optometry" were mapped as an Eye Exams visit.
b) All other line items that occurred on the same day (i.e., related items) for Optometry were bundled under the Eye Exams visit.

Hearing Exams (18a)

1. **a)** All line items where the PHYSICIAN SPECIALTY code is equal to "Audiologist (billing independently)" were mapped as a Hearing Exams visit.
   b) All line items that occurred on the same day as an Outpatient service for Hearing Exams is bundled under the Hearing Exams service.
2. All line items where the SERVICE TYPE is equal to "Hearing Items and Services" were bundled under the Hearing Exams visit.

Pap Smears/Pelvic Exams

1. Medicare policy is that the copay for preventive Pap Smears/Pelvic exams is $0.
2. All line items that occurred on the same day as an Outpatient Pap Smear were bundled under Pap Smears/Pelvic Exams.
3. All line items where HCPCS code is equal to "G0101," "G0123," "G0124," "G0141," "G0143," "G0144," "G0145," "G0147," "G0148," "P3000," "P3001," or "Q0091," and ICD-9-CM code is equal to "V72.31," "V76.2," "V76.47," "V76.49," "V15.89" or ICD-10-CM code is equal to "Z72.51," "Z72.52," "Z72.53," "Z77.29," "Z77.9," "Z91.89," "Z92.89," "Z01.411," "Z01.419," "Z12.4," "Z12.72," "Z12.79," "Z12.89," "Z01.411," "Z01.419," "Z12.4," "Z12.72," "Z12.79," or "Z12.89" were mapped as preventive Pap Smears/Pelvic Exams.
4. All line items where the BETOS code is equal to "Lab Tests – Other" and the PLACE OF SERVICE is equal to "Inpatient Hospital," "Outpatient Hospital," or "Other Unlisted Facility" were mapped as a Pap Smears/Pelvic Exams.

Mammography Screening

1. Medicare policy is that the copay for preventive Mammography Screening exams is $0.
2. All line items that occurred on the same day as Mammography Screening, where HCPCS/CPT code is equal to "77052," "77057," "77063," or "G0202," and ICD-9-CM code is equal to "V76.11" or "76.12" or ICD-10-CM code is equal to "Z12.31" were mapped as Mammography Screening.
3. All other line items that occurred on the same day (i.e., related items) for "Mammography Screening Center" were bundled under the Mammography Screening.

5. Calculation of OM Out-of-Pocket Cost Estimates

The OOPCs for OM (Original Medicare) beneficiaries included in the cohort were calculated using the utilization reported in the MCBS 2013 Cost and Use file and 2015 Cost Supplement file. The calculations assume that beneficiaries enrolled in OM do not have any insurance other than Medicare. The calculations, described in detail in this section, produce OOPCs equal to the monthly Part B premiums, plus the sum of cost sharing for various Inpatient Hospital, SNF, Outpatient, Carrier, and DME services categories. In addition, the OOPCs include estimates for important non-Medicare-covered benefits such as prescription drugs and dental services.

The 2019 MPF, OOPC calculations for the OM plan are done in parallel with the calculations for MA plans. The OM plan is set up using PBP variables and is processed through the same set of mapping procedures and cost-share programs as described in Section 4. This section lists the basic cost sharing information required to calculate the OM OOPC.

5.1 Medicare-covered Inpatient and SNF Services

The following information is necessary to calculate the Medicare-covered Inpatient and SNF OOPCs for individuals participating in CMS' OM program.

Inpatient Hospital Care Coinsurance

Medicare can cover 90 days of medically necessary hospitalization for each benefit period and as many as 60 lifetime reserve days to a maximum of 150 days. The 60 reserve days can be used only once during the beneficiary's lifetime.[6] Acute inpatient and psychiatric inpatient utilization are calculated the same way in Section 4. The beneficiary pays the Part A Inpatient Hospital coinsurance $341 per day for days 61-90 and $682 per day for days 91-150. Beneficiary pays 100% of the cost beyond day 150.

Medicare Part A Hospital Deductible

The beneficiary pays $1,364 period deductible per benefit.

Summing Medicare-covered Inpatient Hospital Costs

The final OOPCs for the Medicare-covered Inpatient Hospital events were generated by summing the cost of the Part A deductible, the total coinsurance costs for days 61-90, and the total coinsurance costs days 91-150 per benefit period.

[6] A benefit period begins the day a beneficiary is admitted to a hospital or SNF. The benefit period ends when the beneficiary has not received hospital or skilled nursing care for 60 days in a row. If the beneficiary is admitted to the hospital after one benefit period has ended, a new benefit period begins. The beneficiary must pay the inpatient hospital deductible for each benefit period. There is no limit to the number of benefit periods for a beneficiary.

SNF Coinsurance

A Medicare beneficiary is eligible for 100 days of care in a SNF during each benefit period. The beneficiary does not pay SNF coinsurance for days 1-20. The beneficiary pays the Part A SNF coinsurance $170.50 for days 21-100. The beneficiary pays 100% for days over 100 in a SNF.

5.2 Non-Medicare-covered Inpatient and SNF Services

OOPCs for Non-Medicare-covered Inpatient and SNF services are calculated identically to the calculations for the MA plans.

5.3 Medical Costs: Physician and Outpatient Services

The following information is necessary to calculate the OOPCs for individuals participating in CMS' OM program for Physician and Outpatient Services.

Medicare Part B Premium

It was assumed that all members of the out-of-pocket cohort participate in Medicare Part B and pay the monthly $135.50 premium ($1,626 annually) in 2019. This amount was applied to every Beneficiary.

Medicare Part B Deductible

It was assumed that every Beneficiary with a positive Part B covered Allowed Charge from the Carrier, DME, and Outpatient files pays a $185 deductible (assuming they have medical or outpatient services of at least $185).

5.4 Non-Medicare-covered Outpatient Services

The following information is necessary to calculate the OOPCs for individuals participating in CMS' OM program for Non-Medicare-covered Outpatient Services.

Prescription Drugs

Drug prescriptions are mapped by their MCBS drug name to RXCUI categories. An average drug price from the PDE claims data file for 2017/2018 is then selected from the list of RXCUIs associated with a drug name. These prices were applied to the number of prescriptions reported in the MCBS 2013 and 2015 data. Drugs that could not be mapped to an RXCUI on the Formulary Reference File were considered over-the-counter, non-prescription drugs. Their costs were not included in OOPCs. Each beneficiary's total out-of-pocket costs were calculated. The beneficiary pays for 100% of all non-covered prescription drugs under Original Medicare. Each event in the 2013 and 2015 MCBS Prescribed Medicine Events (PME) file is considered one drug prescription. As stated in Section 3, MCBS drug prescriptions for 2013 are adjusted using OACT-provided survey underreporting of drug prescription counts to estimate total drug usage in 2019.

Beneficiary-level OOPC estimates for OM beneficiaries who choose to join a Medicare Prescription Drug Plan (PDP) can be obtained from the Medicare Plan Drug Finder website.

Dental

The beneficiary pays for 100% of all non-Medicare-covered comprehensive and preventative dental charges reported in the 2013 and 2015 MCBS data.

6. Calculation of Medigap Out-of-Pocket Cost Estimates

The 2019 MPF, OOPC calculations for the Medigap (Medicare Supplement Insurance) plans are done in parallel with the calculations for MA plans. A Medigap plan is set up using PBP variables and is processed through the same set of mapping procedures and cost-share programs as described in Section 4. This section lists the basic cost sharing information required to calculate the Medigap OOPCs.

For all Medigap OOPC estimates, the full cost of prescription drugs and non-Medicare-covered dental expenditures is assumed to be equal to the OOPCs calculated for OM beneficiaries. These calculations are described in Section 5. OOPC estimates for OM and Medigap beneficiaries who choose to join a Medicare Prescription Drug Plan (PDP) are also described in Section 5.

6.1 Medigap Plan Choices—Medigap Plans A Through N

The Medigap calculations for the OOPC estimates were defined based on "*How to compare Medigap policies*" which was produced by CMS. Specific updates to details for some Medigap plans are also obtained from CMS analysts.

Most Medigap policies are sold in ten standardized plans. Table 6.1 provides a description of most of the Medigap plans and their benefits. Alternative plans offered in Massachusetts, Minnesota, or Wisconsin are discussed in Section 6.2.

Table 6.1 - Medigap Plans and their Benefits										
If an 'X' appears in a column, the Medigap policy covers 100% of the described benefit. If a row lists a percentage, the policy covers that percentage of the described benefit. If a row is blank, the policy doesn't cover that benefit. **Note:** The Medigap policy covers coinsurance only after the beneficiary has paid the deductible (unless the Medigap policy also covers the deductible).										
	Medigap Plans									
Medigap Benefits	**A**	**B**	**C**	**D**	**F***	**G**	**K**	**L**	**M**	**N**
Medicare Part A Coinsurance and Hospital costs up to an additional 365 days after Medicare benefits are used	X	X	X	X	X	X	X	X	X	X
Medicare Part B Coinsurance or Copayment	X	X	X	X	X	X	50%	75%	X	X***
Blood (First 3 pints)	X	X	X	X	X	X	50%	75%	X	X
Part A Hospice Care Coinsurance or Copayment	X	X	X	X	X	X	50%	75%	X	X
SNF Coinsurance			X	X	X	X	50%	75%	X	X
Medicare Part A Deductible		X	X	X	X	X	50%	75%	50%	X
Medicare Part B Deductible			X		X					
Medicare Part B Excess Charges					X	X				
Foreign Travel Emergency (Up to Plan Limits)			80%	80%	80%	80%			80%	80%

* Plan F also offers a high-deductible plan. Under this option, the beneficiary pays for Medicare-covered costs up to the deductible amount of $2,300 in 2019 before the Medigap plan pays anything. (***Source:*** *F & J Deductible Announcements, October 2018 Announcement, CMS).*

** After the beneficiary meets the out-of-pocket yearly limit and the yearly Part B deductible ($185 in 2019), the Medigap plan pays 100% of covered services for the rest of the calendar year.

*** Plan N pays 100% of the Part B coinsurance, except for a copayment of up to $20.00 for some office visits and up to a $50 copayment for emergency room visits that don't result in an inpatient admission.

The subsequent sections describe the calculation of the out-of-pocket costs for individuals purchasing a Medigap policy.

6.1.1 Basic Benefits

Inpatient Hospital Care

This benefit covers the Part A coinsurance of $341 per day for days 61-90 and $682 per day for days 91 to 150. It also covers 100% of the cost for 365 extra days of hospital care during your lifetime, after Medicare coverage ends.

Medical Costs

This benefit covers the Part B coinsurance (generally 20% of the Medicare-approved payment amount) or copayment amount, which may vary according to the service. The coverage follows payment of a $185 deductible. For Plans K and L, the benefit pays 50% and 75%, respectively of the Medicare Part B coinsurance. As noted in the table, Plan N pays 100% of the Part B coinsurance except for a copayment for some office visits.

The benefits provided for Medical Costs under the basic Medigap plan provisions are equivalent to the OM coinsurance amounts for physician-supplier, DME, and outpatient claims. The calculations for these costs are summarized in the OM section above.

Blood

The blood benefit covers the first three pints of packed blood each calendar year. However, as with OM benefits, blood utilization data under Medicare is not readily available from the Cost and Use or Cost Supplement dataset. Therefore, this category was excluded from the Medigap OOPC calculations.

Hospice Care

Medicare hospice claims from the MCBS are not processed. Therefore, this benefit is assumed to pay 100 percent of the hospice out-of-pocket costs for Medicare Part A Medicare-covered expenses and respite care.

6.1.2 "Extra" Benefits

Medicare Part A Hospital Deductible

This benefit covers $1,364 per benefit period. This amount can change every year. For the K and M policies, the benefit covers 50% of the deductible. For the L policy, the benefit covers 75% of the deductible.

SNF Coinsurance

This benefit covers the Medicare-covered coinsurance amounts for each SNF event. For Plans K and L, the benefit covers 50% and 75%, respectively, of the coinsurance amounts.

Medicare Part B Deductible

This benefit covers up to $185 per year. The benefit for Plans C and F is equal to the calculated Part B deductible.

Foreign Travel Emergency (Emergency Care Outside the United States)

This benefit for Plans C, D, F, G, M, and N generally covers 80% of the cost of emergency care during the first 60 days of each trip (after the $250 deductible is paid) and a $50,000 lifetime benefit limit. No data are available in the MCBS dataset to identify Foreign Travel costs to beneficiaries. Therefore, this category was excluded from the Medigap OOPC calculations.

Medicare Part B Excess Charge

This benefit for Plans F and G covers the difference between the physician's actual charge and Medicare's approved amount. Plan F pays all of the excess charges; plan G pays 80% of the excess charges. There is a general assumption that a high percentage of physicians accept Medicare assignment. As a result, there is no excess Part B charge in the MPF computations (OM or Medigap) to offset this coverage benefit. In addition, no data are available in the MCBS dataset to identify Medicare Part B excess charge costs to beneficiaries. Therefore, this category was excluded from the Medigap OOPC calculations.

6.1.3 High Deductible Option Plan F

The High Deductible version for Plan F has a $2,300 deductible with a $250 deductible on foreign travel before other policy benefits are paid.[7] For High Deductible Plan F, the beneficiary's OM OOPCs for Inpatient, SNF, and Physician/Outpatient services are summed first. The Medigap Plan F OOPCs from Inpatient, SNF, and Physician/Outpatient services, assuming no deductible, are also summed. If the OM OOPC sum exceeds $2,300, then the OOPC for the High Deductible Plan F equals $2,300 plus the calculated Plan F OOPC above $2,300, plus the beneficiary's OM OOPCs for Drug and Dental charges. Otherwise, the OOPC for the High Deductible Plan F equals the sum of the OM OOPC plus the beneficiary's OOPCs for OM Drug and Dental charges.

6.2 Medigap Plan Choices - Medigap Exempted State Plans (MA, MN, or WI)

The following table provides a description of all of the Medigap exempted state plans and their benefits. The three exempted states have several benefits and options that are either too complicated for calculation or too difficult to quantify. The benefits for the five basic and extended policies are described in this section. Wisconsin offers additional Medigap Plans that are equivalent to the High F, K, and L plan provisions described in the previous section. Minnesota offers additional Medigap Plans that are equivalent to the High F, K, L, M, and N plan provisions described in the previous section.

[7] The high deductible amounts are adjusted according to inflation and provided by CMS. The High F Medigap premiums necessary for final OOPC calculation are only available for a limited number of states. See below for a description of the premiums used for these plans.

Table 6.2 - Medigap Exempted State Plans					
	Medigap Plans and Benefits Provided				
	Massachusetts Core	Massachusetts Supplement 1	Minnesota Basic	Minnesota Extended Basic	Wisconsin Basic
Basic Benefit	X	X	X	X	X
Skilled Nursing Coinsurance		X	X	X	X
Part A Deductible		X		X	
Part B Deductible		X		X	
Foreign Travel Emergency		X	80%	80%*	
Physical Therapy			20%	20%	
Home Health					X
Inpatient Days: Mental Hospitals	X	X			X
Outpatient Mental Health			50%	50%	
Usual and Customary Fees				80%*	
State-Mandated Benefits		X	X	X	X

* The Minnesota Extended Basic Plan pays 100% after $1,000 in covered OOPCs are spent for calendar year.

The following is the information necessary to calculate the out-of-pocket savings for individuals purchasing a Medigap policy for the three exempt states.

6.2.1 Basic Benefits

Inpatient Hospital Care Coinsurance (All Exempted State Plans)

This benefit covers the Part A coinsurance of $341 per day for days 61-90 and $682 per day for days 91-150. It also covers 100% of the cost for 365 extra days of hospital care during your lifetime after Medicare coverage ends.

Medical Costs (All Exempted State Plans)

This benefit covers the Part B coinsurance (generally 20% of the Medicare-approved payment amount) or copayment amount, which may vary according to the service. The coverage follows payment of the $185 deductible, unless the deductible is covered.

The benefits provided for Medical Costs, under the basic benefit for these Medigap plan provisions, are equivalent to the OM coinsurance amounts for Carrier, DME, and Outpatient claims. The calculations for these costs are summarized in the OM section above.

Blood

This benefit covers the first three pints of packed blood each calendar year. Blood utilization data under Medicare is not readily available from the Cost and Use or Cost Supplement dataset. Therefore, this category was excluded from the Medigap OOPC calculations.

6.2.2 Extra Benefits

Medicare Part A Hospital Deductible

For the Massachusetts Supplemental 1 and Minnesota Extended Basic plans, this benefit covers $1,364 per benefit period. This amount can change every year.

SNF Coinsurance

For the Massachusetts Supplemental 1 and the Wisconsin Basic plan, the benefit covers up to $170.50 per day for covered days in a Skilled Nursing Facility (SNF). For the Minnesota Basic and the Minnesota Extended Basic plans, the benefit covers 100 days and 120 days, respectively of SNF Coinsurance, beyond the OM benefit.

Medicare Part B Deductible

For the Massachusetts Supplemental 1 and Minnesota Extended Basic plans, this benefit covers up to $185 per year. The benefit under these Medigap plans is equal to the calculated Part B Deductible.

Foreign Travel Emergency (Emergency Care Outside the United States)

For the Massachusetts Supplemental 1, Minnesota Basic, and Minnesota Extended Basic plans, this benefit covers 80% of the cost of emergency care during the first 60 days of each trip (after the $250 deductible is paid) and a $50,000 lifetime benefit limit. No data are available in the MCBS dataset to identify Foreign Travel costs to beneficiaries; therefore, this category was excluded from the Medigap OOPC calculations.

Inpatient Psychiatric Care

For Massachusetts, the core plan covers 60 days per calendar year. The Supplement 1 plan covers 120 days per benefit year. For the Wisconsin Basic plan, the benefit is 175 days per lifetime inpatient psychiatric care.

Outpatient Mental Health

For the Minnesota Basic and Extended Basic plans, coverage is 50% of the OM approved coinsurance amount for most outpatient and psychiatric mental health services.

Physical Therapy

For the Minnesota Basic and Extended Basic plans, coverage is 20% of the OM approved coinsurance amount for physical therapy services.

Home Health

For the Wisconsin Basic plan, 40 visits in addition to those paid by Medicare are covered. For the OOPC estimates, all Home Health care is assumed to be covered.

Usual and Customary Fees

The Minnesota Extended Basic plan covers 80% of the Usual and Customary fees not paid by Medicare, including foreign travel. Specific Usual and Customary Fees utilization for non-Medicare-covered services are not readily available from the Cost and Use or Cost Supplement dataset. Therefore, this category is excluded from the Medigap OOPC calculations.

State-Mandated Benefits

All of the above plans, except Massachusetts Core plan, also offer state-mandated benefits. These include Annual pap tests, mammograms, diabetic equipment, cancer screening, immunizations, and reconstructive surgery. Because of the lack of detail data on how the benefits apply to MCBS claims data, the associated benefits and OOPCs are not calculated.

Minnesota Extended Basic Out-of-Pocket Limit

The Minnesota Extended Basic plan has a $1,000 annual limit on OOPCs for covered medical expenses. Once a beneficiary has reached this limit, the policy will pay 100% of covered expenses.

1. The sum of the OOPCs for Inpatient, SNF, and Medical services charges determined above was calculated by beneficiary for the Minnesota Extended Basic plan.
2. If the sum of these costs exceeded $1,000, then OOPCs under the Minnesota Extended Basic plan equaled $1,000 plus the Beneficiary's OOPCs for outpatient drug and dental charges.
3. If the sum of these costs did not exceed $1,000, then OOPCs under the Minnesota Extended Basic plan equaled the above OOPC sum, plus the Beneficiary's OOPCs for non-Medicare-covered dental and prescription drug charges.

6.3 Medigap Premiums

A Medigap premium is applied to the Medigap OOPC calculations for each state and type of Medigap plan.[8] The most recently available industry representative premiums are generally used, as they become available. Many private insurers offer Medigap policies, but there is significant variation across plans in terms of premiums (e.g., underwriting, premium amounts, rating methods, etc.).

The following is the process used to incorporate the premium amount into the OOPCs for most Medigap plans, including the three exempt states:

- An Excel file of industry representative 2018 premiums was used to create an OOPC premium file;
- Where states had regional or area-specific premiums, the average rate across regions for each state was calculated;
- Plan names were then re-coded to correspond to the plan types being displayed in the MPF; and
- Finally, each state's premiums were added to calculate the final Medigap plan OOPC estimates.

For the 2019 OOPC calculations, the premiums for some plans are not available from the same industry representative source used for other Medigap plans. For the states where these plans are being offered, state insurance websites are examined. For each state, the most recently available, minimum premium for each plan was selected. This premium was then added to the file described above.

[8] Currently, the single statewide Medigap premium is used. In situations where the premiums are age-specific, the Medigap premium for the 65-69 age group was applied to the MPF calculations. For all but a few states, this assumption does not make a difference because premiums do not vary by age. For the few other states, it is assumed that the 65-69 age premium is appropriate for most new Medicare beneficiaries using the MPF.

7. Calculation of High-Cost Out-of-Pocket Cost Estimates

The MPF OOPC calculation methodology also estimates OOPCs that may be imposed on Medicare beneficiaries by chronic or high-cost illnesses. The Hierarchical Condition Category (HCC) model is used to provide useful diagnostic definitions for several candidates' chronic or catastrophic categories. The HCC model was developed by CMS to establish a risk-adjusted methodology for reimbursing MA-PD or MA plans.

The approach used to calculate OOPCs for beneficiaries with high-cost conditions is as follows:

1. Utilization data for the beneficiaries in the 2013 and 2015 MCBS cohorts were run through the respective 2013 and 2015 versions of the HCC model. Beneficiaries having one or more HCCs in 2013 or 2015 were identified. These conditions are identified when a claim has a diagnosis in the Inpatient, Outpatient, or Physician Supplier claims-level files (from the MCBS Cost and Use File for 2013 or from the Cost Supplement File for 2015) that corresponds to an HCC category in the HCC model.
2. Based on these results, CMS selected the three high-cost health categories to be included in the first version of the MPF. The two selected chronic categories were Diabetes (HCCs 15-19 for 2013 or HCCs 17-19 for 2015) and Congestive Heart Failure - CHF (HCC 80 for 2013 or HCC 85 for 2015). The selected catastrophic category was Acute Heart Condition – AHC (HCCs 81-82 or HCCs 86-87 for 2015).
3. The OOPCs for OM, as well as each Managed Care and Medigap plan were calculated. This was done by applying the BASEIDs identified with each of the three categories to the OOPC cost algorithms described in Sections 4, 5, and 6 above. Cost estimates were then aggregated and averaged for all beneficiaries in each chronic/catastrophic category, regardless of health status.
4. The descriptions for the HCC codes included in each category are listed in Tables 7.1 and 7.2.

Table 7.1 - Hierarchical Condition Category Model for 2013

HCC CATEGORY	HCC CODE	DESCRIPTION
Diabetes	15	Diabetes with Renal or Peripheral Circulatory Manifestation
	16	Diabetes with Neurological or Other Specified Manifestation
	17	Diabetes with Acute Complications
	18	Diabetes with Ophthalmologic or Unspecified Manifestation
	19	Diabetes without Complication
Congestive Heart Failure	80	Congestive Heart Failure
Acute Heart Condition	81	Acute Myocardial Infarction
	82	Unstable Angina or Other Acute Ischemic Heart Disease

Table 7.2 - Hierarchical Condition Category Model for 2015		
HCC CATEGORY	**HCC CODE**	**DESCRIPTION**
Diabetes	17	Diabetes with Acute Complications
	18	Diabetes with Ophthalmologic or Unspecified Manifestation
	19	Diabetes without Complication
Congestive Heart Failure	85	Congestive Heart Failure
Acute Heart Condition	86	Acute Myocardial Infarction
	87	Unstable Angina and Other Acute Ischemic Heart Disease

8. Development of Display Values

In the MPF, a beneficiary enters their zip code and other information. For each beneficiary, the OOPCs were calculated based on the utilization and costs that would be incurred under each MA-PD or MA, Medigap, and/or OM plan.[9] First, the mean monthly cost incurred for each plan and each health grouping is calculated. This cost is allocated across several major category areas, i.e., inpatient, dental, other utilization, Part B, Part C, Part D, and Medigap premiums. When displaying OOPC estimates for the high-cost conditions described above, these monthly costs are rounded. Also, an annualized total cost for each plan and health grouping is calculated for display. The OM and Medigap costs are treated as other "plans." Finally, for each plan, the mean estimate OOPC rounded for the three selected high cost health categories described above in Section 7 is calculated.

[9] In the MPF, the cost for a typical MCBS beneficiary in "Good" health is reported as the default. The beneficiary can change this assumption, as desired, to "Poor" or "Excellent."

Appendix A: 2013 and 2015 MCBS Documentation

The MCBS is a continuous, multipurpose survey of a representative national sample of the Medicare population, conducted by CMS. The central goals of the MCBS are to:

- determine expenditures and sources of payment for services used by Medicare beneficiaries, including copayments, deductibles, and non-covered services;
- ascertain all types of health insurance coverage and relate coverage to sources of payment; and
- trace processes over time, such as changes in health status, spending down to Medicaid eligibility, and the impacts of program changes.

Approximately 8,400 beneficiaries from the survey are used every year. The survey files are identified by a RIC code for 2013 or by a segment for 2015. There are also claims files that are linked to the survey respondents by a unique identification number for 2013 and 2015.

The Survey Files contain information related to:

- the survey respondent and survey information
- health status and functioning
- health insurance
- household composition
- facility characteristics (if in a facility)
- interview information
- timeline of events; and
- survey weights.

The Cost and Use or Cost Supplement Files contain "event-" level health care utilization information:

- Dental
- Facility
- Inpatient
- Institutional
- Medical Provider
- Outpatient Hospital; and
- Prescription Drug.

There are two utilization summary files: one at the service level and one at the person level. The event file records are linked to a claim by a claim identification number when there is a claim-generated event or when a survey event can be linked to the claim.

Appendix B: 2019 Part D Benefit Assumptions – MA-PD & PDP Plans

Appendix B Table 1				
CY 2019 Medicare Part D Cost Share and Cost Limit Parameters	**Defined Standard**	**Actuarially Equivalent**	**Basic Alternative**	**Enhanced Alternative**
Pre-ICL Cost Shares	25%	25% or Tiers	25% or Tiers	25% or Tiers or No Cost Sharing
Pre-Deductible	No Coverage	No Coverage	Yes, optional	Yes, optional
Deductible	$415	$415	$415 or Plan-specified or No Deductible	$415 or Plan-specified or No Deductible
ICL	$3,820	$3,820	$3,820 or Plan-specified or No ICL	$3,820 or Plan-specified or No ICL
Gap Coverage	37% Generic Beneficiary Cost 25% Brand Beneficiary Cost	37% Generic Beneficiary Cost 25% Brand Beneficiary Cost	37% Generic Beneficiary Cost 25% Brand Beneficiary Cost	37% Generic Beneficiary Cost 25% Brand Beneficiary Cost
Additional Gap Coverage	N/A	N/A	N/A	No Additional Coverage Or Gap Tiers
Threshold (TROOP)	$5,100	$5,100	$5,100	$5,100
Catastrophic Coverage Threshold	$8,139.54	$8,139.54	$8,139.54	$8,139.54
Post-Threshold Cost Shares	Greater of $3.40 or 5% for generics (including brands treated as generic, or Greater of $8.50 or 5% for all other drugs	Greater of $3.40 or 5% for generics (including brands treated as generic, or Greater of $8.50 or 5% for all other drugs or Post-Threshold Tiers or No Cost Sharing	Greater of $3.40 or 5% for generics (including brands treated as generic, or Greater of $8.50 or 5% for all other drugs or Post-Threshold Tiers or No Cost Sharing	Greater of $3.40 or 5% for generics (including brands treated as generic, or Greater of $8.50 or 5% for all other drugs or Post-Threshold Tiers or No Cost Sharing
Excluded Drugs Maximum Benefit Coverage Limit	N/A	N/A	N/A	Yes, optional*. *Coverage limit applies to Excluded Drugs tier only.
Charge Lesser of Copayment or Cost of the Drug	N/A	Yes, optional.	Yes, optional	Yes, optional

Appendix C: Inflation Factors

To inflate the 2013 and 2015 costs on the MCBS event files and the Medicare claims to 2019 dollars, CMS provided the following inflation factors:

Appendix C Table 1			
Fiscal Year	RICIPE (Inpatient Hospital)	RICIUE (SNF)	RICDUE (Dental Prices)
2013	2.8%	1.8%	3.4%
2014	0.9%	1.3%	2.1%
2015	1.4%	2.0%	2.5%
2016	0.9%	1.2%	2.8%
2017	0.15%	2.4%	1.6%
2018	1.2%	1.0%	2.8%
2019	1.9%	2.4%	3.3%

Appendix C Table 2			
	RICPME (Drugs)		
	Price	Utilization & Intensity per Capita	Total
2013	2.3%	-0.7%	1.6%
2014	3.6%	7.7%	11.6%
2015	2.1%	5.9%	8.1%
2016	1.4%	-0.8%	0.6%
2017	2.1%	3-0.1%	2.0%
2018	4.4%	1.1%	5.4%
2019	3.1%	1.5%	4.6%

Appendix C Table 3	
Fiscal Year	HHA
2013	0.0%
2014	-1.05%
2015	-0.7%
2016	-1.4%
2017	-0.2%
2018	1.0%
2019	2.1%

Appendix C Table 4	
Fiscal Year	Outpatient
2013	1.8%
2014	1.7%
2015	2.1%
2016	-0.3%
2017	1.65%
2018	1.75%
2019	1.25%

Appendix C Table 5		
CARRIER AND DME	2013-2019	2015-2019
BETOS Code	Change	Change
D1A:Medical/surgical supplies	1.082173	1.055624
D1B:Hospital beds	1.082173	1.055624
D1C:Oxygen and supplies	1.082173	1.055624
D1D: Wheelchairs	1.082173	1.055624
D1E:Other DME	1.082173	1.055624
D1F:Orthotic devices	1.082173	1.055624
D1G:Drug administered through DME	1.140030	1.114353
I1A:Standard imaging – chest	1.027805	1.020650
I1B:Standard imaging - musculoskeletal	1.027805	1.020650
I1C:Standard imaging – breast	1.027805	1.020650
I1D:Standard imaging - contrast gastrointestinal	1.027805	1.020650
I1E:Standard imaging - nuclear medicine	1.027805	1.020650
I1F:Standard imaging – other	1.027805	1.020650
I2A:Advanced imaging - CAT: head	1.027805	1.020650
I2B:Advanced imaging - CAT: other	1.027805	1.020650
I2C:Advanced imaging - MRI: brain	1.027805	1.020650
I2D:Advanced imaging - MRI: other	1.027805	1.020650
I3A:Echography – eye	1.027805	1.020650
I3B:Echography - abdomen/pelvis	1.027805	1.020650
I3C:Echography – heart	1.027805	1.020650
I3D:Echography - carotid arteries	1.027805	1.020650
I3E:Echography - prostate, transrectal	1.027805	1.020650
I3F:Echography – other	1.027805	1.020650
I4A:Imaging/procedure – heart, including cardiac catheterization	1.027805	1.020650
I4B:Imaging/procedure – other	1.027805	1.020650
M1A:Office visits – new	1.027805	1.020650
M1B:Office visits – established	1.027805	1.020650
M2A:Hospital visit – initial	1.027805	1.020650
M2B:Hospital visit – subsequent	1.027805	1.020650
M2C:Hospital visit - critical care	1.027805	1.020650
M3 :Emergency room visit	1.027805	1.020650
M4A:Home visit	1.027805	1.020650
M4B:Nursing home visit	1.027805	1.020650
M5A:Specialist – pathology	1.027805	1.020650
M5B:Specialist – psychiatry	1.027805	1.020650

Appendix C Table 5		
CARRIER AND DME	2013-2019	2015-2019
BETOS Code	Change	Change
M5C:Specialist – ophthalmology	1.027805	1.020650
M5D:Specialist – other	1.027805	1.020650
M6 :Consultations	1.027805	1.020650
O1A:Ambulance	1.082173	1.055624
O1B:Chiropractic	1.027805	1.020650
O1C: Enteral and Parental	1.082173	1.055624
O1D:Chemotherapy	1.140030	1.114353
O1E:Other drugs	1.140030	1.114353
O1F:Vision, hearing and speech services	1.110142	1.086368
O1G:Influenza immunization	1.101113	1.069921
P0 :Anesthesia	1.027805	1.020650
P1A:Major procedure – breast	1.027805	1.020650
P1B:Major procedure - colectomy	1.027805	1.020650
P1C:Major procedure - cholecystectomy	1.027805	1.020650
P1D:Major procedure – turp	1.027805	1.020650
P1E:Major procedure – hysterectomy	1.027805	1.020650
P1F:Major procedure - explor/decompr/excisdisc	1.027805	1.020650
P1G:Major procedure – Other	1.027805	1.020650
P2A:Major procedure, cardiovascular - cabg	1.027805	1.020650
P2B:Major procedure, cardiovascular - aneurysm repair	1.027805	1.020650
P2C:Major Procedure, cardiovascular - thromboendarterectomy	1.027805	1.020650
P2D:Major procedure, cardiovascular - coronary angioplasty (PTCA)	1.027805	1.020650
P2E:Major procedure, cardiovascular - pacemaker insertion	1.027805	1.020650
P2F:Major procedure, cardiovascular - other	1.027805	1.020650
P3A:Major procedure, orthopedic hip fracture repair	1.027805	1.020650
P3B:Major procedure, orthopedic hip replacement	1.027805	1.020650
P3C:Major procedure, orthopedic knee replacement	1.027805	1.020650
P3D:Major procedure, orthopedic - other	1.027805	1.020650
P4A:Eye procedure - corneal transplant	1.027805	1.020650
P4B:Eye procedure - cataract removal/lens insertion	1.027805	1.020650
P4C:Eye procedure - retinal detachment	1.027805	1.020650
P4D:Eye procedure – treatment of retinal lesions	1.027805	1.020650
P4E:Eye procedure – other	1.027805	1.020650
P5A:Ambulatory procedures – skin	1.078370	1.050871
P5B:Ambulatory procedures - musculoskeletal	1.078370	1.050871

Appendix C Table 5		
CARRIER AND DME	2013-2019	2015-2019
BETOS Code	Change	Change
P5C:Ambulatory procedures – inguinal hernia repair	1.078370	1.050871
P5D:Ambulatory procedures - lithotripsy	1.078370	1.050871
P5E:Ambulatory procedures - other	1.078370	1.050871
P6A:Minor procedures – skin	1.027805	1.020650
P6B:Minor procedures - musculoskeletal	1.027805	1.020650
P6C:Minor procedures - other (Medicare fee schedule)	1.027805	1.020650
P6D:Minor procedures - other (non-Medicare fee schedule)	1.027805	1.020650
P7A:Oncology - radiation therapy	1.027805	1.020650
P7B:Oncology – other	1.027805	1.020650
P8A:Endoscopy – arthroscopy	1.027805	1.020650
P8B:Endoscopy - upper gastrointestinal	1.027805	1.020650
P8C:Endoscopy – sigmoidoscopy	1.027805	1.020650
P8D:Endoscopy – colonoscopy	1.027805	1.020650
P8E:Endoscopy – cystoscopy	1.027805	1.020650
P8F:Endoscopy – bronchoscopy	1.027805	1.020650
P8G:Endoscopy - laparoscopic cholecystectomy	1.027805	1.020650
P8H:Endoscopy – laryngoscopy	1.027805	1.020650
P8I:Endoscopy – other	1.027805	1.020650
P9A:Dialysis services (Medicare Fee Schedule)	1.027805	1.020650
P9B: Dialysis services (Non-Medicare Fee Schedule)	1.027805	1.020650
T1A:Lab tests - routine venipuncture (non-Medicare fee schedule)	1.018854	1.030161
T1B:Lab tests - automated general profiles	1.018854	1.030161
T1C:Lab tests – urinalysis	1.018854	1.030161
T1D:Lab tests - blood counts	1.018854	1.030161
T1E:Lab tests – glucose	1.018854	1.030161
T1F:Lab tests - bacterial cultures	1.018854	1.030161
T1G:Lab tests - other (Medicare fee schedule)	1.018854	1.030161
T1H:Lab tests - other (non-Medicare fee schedule)	1.018854	1.030161
T2A:Other tests – electrocardiograms	1.027805	1.020650
T2B:Other tests cardiovascular stress tests	1.027805	1.020650
T2C:Other tests - EKG monitoring	1.027805	1.020650
T2D:Other tests - other	1.027805	1.020650
Y1 :Other - Medicare fee schedule	1.027805	1.020650
Y2 :Other - non-Medicare fee schedule	1.027805	1.020650
Z1 :Local codes	1.027805	1.020650

Appendix C Table 5		
CARRIER AND DME	2013-2019	2015-2019
BETOS Code	Change	Change
Z2 :Undefined codes	1.027805	1.020650

Appendix D: OOPC Database

This appendix includes descriptions of the files generated for the OOPC database.

Record Layouts

For the pln_oopc file, there will be three records, or three health status records, for every plan that is available in the MPF. If a plan has no data and is displayed in MPF, there will be three records with blank fields.

For the medigap_oop file, there will be three records, or three health status records, for every state/simple plan type combination. For all states except MA, MN and WI, the simple plan types are the same. For MA, the simple plan types are MA1 and MA2. For MN, the simple plan types are MN1 and MN2. For WI, the simple plan type is WI1. If a plan has no data and is displayed in MPF, there will be three records with blank fields.

Appendix D Table 1: Pln_oopc File

FIELD NAME	DESCRIPTION	EXAMPLE/FORMAT	NOTE
Contract_id	Contract ID	H9999/S9999	
plan_id	Plan ID	001	
segment_id	Segment ID	0	
contract_year	Contract Year	2019	
hlth_ctgry	Self-Assessed Health grouping for OOPCs	(1)Excellent, (3)Good, (5)Poor	
Dbts	Average monthly total OOPC for those with diabetes, excluding drugs and Part D Premium.	$	Not Applicable to PDP (S Contract IDs)
Chf	Average monthly total OOPC for those with chronic heart failure, excluding drugs and Part D Premium.	$	Not Applicable to PDP (S Contract IDs)
Ahc	Average monthly total OOPC for those with acute heart conditions, excluding drugs and Part D Premium.	$	Not Applicable to PDP (S Contract IDs)
Dbts_drugs	Average monthly total drug OOPCs for those with diabetes.	$	
Chf_drugs	Average monthly total drug OOPCs for those with chronic heart failure.	$	
Ahc_drugs	Average monthly total drug OOPCs for those with acute heart conditions.	$	
dental_services	Average monthly dental OOPC in health group.	$	Not Applicable to PDP (S Contract IDs)

Appendix D Table 1: Pln_oopc File			
FIELD NAME	**DESCRIPTION**	**EXAMPLE/FORMAT**	**NOTE**
part_c_prm	Monthly Part C premium for plan.	$	Not Applicable to PDP (S Contract IDs)
inpatient_care	Average monthly inpatient OOPC in health group.	$	Not Applicable to PDP (S Contract IDs)
part_b_prm	Medicare Part B Premium	$	Not Applicable to PDP (S Contract IDs)
all_other_utilization	Average monthly all other services OOPC in health group.	$	Not Applicable to PDP (S Contract IDs)
part_d_prm	Part D Premium for Plan (=$0 for MA Only plans)	$	
part_d_drugs	Average monthly Part D Drug cost in health group, including deductible, excluding premium. (For MA Only Plans=Original Medicare cost)	$	
brkdwn_tot	Average monthly total OOPC cost in health group: Sum of dental_services, Part_c_premium, Inpatient_care, part_b_premium, all_other_utilization, part_d_premium, and part_d_drugs	$	

Appendix D Table 2: Medigap_oop File		
FIELD NAME	**DESCRIPTION**	**EXAMPLE/FORMAT**
state_cd	State Abbreviation	VA, MD, MA, CA
simple_plan_type	Plan ID	A
cntrct_yr	Contract Year	2019
hlth_ctgry	Self-Assessed Health grouping for OOPCs	(1) Excellent, (3) Good, (5) Poor
Dbts	Average monthly total OOPC for those with diabetes, excluding drugs and Part D Premium.	$
Chf	Average monthly total OOPC for those with chronic heart failure, excluding drugs and Part D Premium.	$
Ahc	Average monthly total OOPC for those with acute heart conditions, excluding drugs and Part D Premium.	$
Dbts_drugs	Average monthly total drug OOPCs for those with diabetes.	$

Appendix D Table 2: Medigap_oop File		
FIELD NAME	**DESCRIPTION**	**EXAMPLE/FORMAT**
Chf_drugs	Average monthly total drug OOPCs for those with chronic heart failure.	$
Ahc_drugs	Average monthly total drug OOPCs for those with acute heart conditions.	$
Drugs	Average monthly total OOPC for drugs in health group. (Original Medicare cost--Premium = $0)	$
dental_services	Average monthly dental OOPC in health group.	$
medigap_prm	Monthly Medigap premium for plan.	$
inpatient_care	Average monthly inpatient OOPC in health group.	$
part_b_prm	Medicare Part B Premium	$
all_other_utilization	Average monthly all other services OOPC in health group.	$
brkdwn_tot	Average monthly total OOPC cost in health group: Sum of drugs, dental services, Medigap_premium, inpatient_care, part_b_premium, and all_other_utilization.	$

List of Acronyms

AHC	Acute Heart Condition
ASC	Ambulatory Surgical Center
BASEID	Unique Person Identification Number
BETOS	Berenson-Eggers Type of Service
CAP	Competitive Acquisition Program
CBC	Center for Beneficiary Choices
CHF	Congestive Heart Failure
CMS	Centers for Medicare & Medicaid Services
CORF	Comprehensive Outpatient Rehabilitation Facility
CT	Computed Tomography
CY	Contract Year
DCG	Diagnostic Cost Group
DUE	Dental Events
DME	Durable Medical Equipment
ECG	Electrocardiography
EEG	Electroencephalography
EKG	Electrocardiography
ER	Emergency Room
ESRD	End-stage Renal Disease
FDA	Food and Drug Administration
GI	Gastro-intestinal
HCPCS	Healthcare Common Procedure Coding System
HHA	Home Health Agencies
HCC	Hierarchical Condition Category
HMO	Health Maintenance Organization
ICL	Initial Coverage Limit
IDTF	Independent Diagnostic Testing Facility
IPE	Inpatient Event
MA	Medicare Advantage
MAO	Medicare Advantage Organization
MAPD	Medicare Advantage Prescription Drug
MCBS	Medicare Current Beneficiary Survey
MDS	Minimum Data Set
MOC	Medicare Options Compare

List of Acronyms

MPF	Medicare Plan Finder
MRI	Magnetic Resonance Imaging
MSA	Medical Savings Account Plans
NDC	National Drug Codes
OACT	Office of the Actuary
OM	Original Medicare
OOPCs	Out-of-pocket Costs
OSP	Office of Strategic Planning
ORDI	Office of Research, Development & Information
OT	Occupational Therapy
PBP	Plan Benefit Package
PCP	Primary Care Physician
PDE	Prescription Drug Event
PDP	Prescription Drug Plans
PET	Positron Emission Tomography
PHI	Premium Hospital Insurance
PME	Prescribed Medicine Event
PPO	Preferred Provider Organization
PPS	Prospective Payment System
PT	Physical Therapy
RIC	Record Identification Code
RIC DUE	Record Identification Code - Dental Events
RIC IPE	Record Identification Code - Inpatient Hospital Events
RIC IUE	Record Identification Code - Institutional Events
RIC MPE	Record Identification Code - Medical Provider Events
RIC PS	Record Identification Code - Person Summary
RXCUI	RxNorm Concept Unique Identifier
SNF	Skilled Nursing Facility
SNP	Special Needs Plan
SP	Speech and Language Pathology
VA	Veterans Administration