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**CY 2011 MEDICARE OPTIONS COMPARE  
OUT-OF-POCKET COST ESTIMATES  
METHODOLOGY**

*NOVEMBER 2010 UPDATE*

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## List of Acronyms

AHC	Acute Heart Condition
APC	Ambulatory Procedure Code
ASC	Ambulatory Surgical Center
BASEID	Unique Person Identification Number
BETOS	Berenson-Eggers Type of Service
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 Utilization Event
DME	Durable Medical Equipment
ECG	Electrocardiography
EEG	Electroencephalography
EKG	Electrocardiography
ER	Emergency Room
ESRD	End-stage Renal Disease
GI	Gastro-intestinal
HCPCS	Healthcare Common Procedure Coding System
HHA	Home Health Agencies
HCC	Hierarchical Condition Category
HMO	Health Maintenance Organization
IPE	Inpatient Event
MA	Medicare Advantage
MA - PD	Medicare Advantage with Prescription Drug
MDS	Minimum Data Set
MCBS	Medicare Current Beneficiary Survey
MOC	Medicare Options Compare
MPE	Modern Provider Event
MRI	Magnetic Resonance Imaging
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
PPS	Perspective Payment System

PT	Physical Therapy
RIC	Record Identification Code
RICDUE	Record Identification Code - Dental Services
RICIPE	Record Identification Code - Inpatient Hospital
RICIUE	Record Identification Code - Skilled Nursing Facility
RICMPE	Record Identification Code - Medical Provider Events
RICPS	Record Identification Code - Personal Summary
RXCUI	RxNorm Concept Unique Identifiers
SNF	Skilled Nursing Facility
SNP	Special Needs Plan
VA	Veterans Administration

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# 1. INTRODUCTION

The Centers for Medicare & Medicaid Services (CMS) defined and developed the process, data sources, and algorithms necessary to populate the Medicare Options Compare (MOC) Out-of-Pocket Cost (OOPC) database for Original Medicare (OM), Medicare Advantage with Prescription Drug (MA-PD), Medicare Advantage Only (MA-Only) and Medigap plans.<sup>1</sup> Working with the Center for Beneficiary Choices (CBC), the Office of Research, Development & Information (ORDI), and the Office of the Actuary (OACT), Fu Associates, Ltd. defined a cohort of OM individuals based on the 2005 and 2006 Medicare Current Beneficiary Surveys (MCBS).

This cohort provides the basis from which to identify the utilization measures and OOPC estimates for the MOC OOPC database. Beginning in June, 2010, the nationally representative cohort was used to populate five categories, each based on a self-reported health status, in the MOC OOPC database.<sup>2</sup> The Medicare Current Beneficiary Survey (MCBS) events and claims for the designated cohort were reviewed to develop the beneficiaries' utilization measures and estimate OOPCs under all the above plans.

Where necessary, Fu Associates, Ltd., inflated the out-of-pocket costs to reflect 2011 costs using inflation factors provided by OACT. In general, costs were inflated based on service-based inflation factors. Part D outpatient drug calculations applied average prices from the Medicare Prescription Drug Event (PDE) claims data (2008). The outpatient data used the Ambulatory Procedure Code (APC) prices where APCs could be determined. Premiums, deductibles, and selected OM copayments used actual 2011 data. These costs formed the basis for the OM component of the MOC OOPC database. The Contract Year (CY) 2011 Plan Benefit Packages (PBPs) were used to define the OOPCs associated with CY 2011 Medicare Advantage-Prescription Drug (MA-PD, PDP, and MA-Only) plans. All PBP cost share data are provided in 2011 dollars. Finally, Medigap premium data were used to define the OOPCs for CY 2011 Medigap plans.

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<sup>1</sup> Original Medicare was formerly known as Fee-for-Service (FFS).

<sup>2</sup> For purposes of display on the MOC, only three of the health status groups are used: Excellent, Good, and Poor. Before June 2010, the estimates were calculated for a total of 30 cells made up of six age and five self-reported health status groups.

## **2. SELECTION OF THE MOC COHORT BASED ON THE 2005 AND 2006 MCBS**

Fu Associates, Ltd. reviewed the variables in the 2005 and 2006 MCBS files and used this information to develop an Original Medicare (OM) cohort for the MOC. The OM cohort provides the baseline from which the MOC OOPC database was developed. Appendix A provides a basic description and record counts for the MCBS files used.

### **2.1 SCREENING PROCESS**

Certain criteria were used to either include or exclude beneficiaries in the Original Medicare OM cohort. Assignment to a particular cell was based on the beneficiary's health status. As development of accurate out-of-pocket estimates require the availability of all utilization during the year, beneficiaries who did not meet certain criteria were excluded from the final cohort.

The following screening criteria were used to establish the final cohort:

1. Beneficiaries interviewed in a facility were excluded from the cohort due to potentially insufficient utilization data;
2. Beneficiaries, whose health status was missing, were excluded from the cohort because they could not be mapped into a health status category;
3. Beneficiaries who were not enrolled in Medicare Parts A & B for all twelve months in 2005 or 2006 respectively, or until death, were excluded from the cohort due to potentially insufficient utilization data;
4. Beneficiaries with one or more months of Medicare Managed Care enrollment were excluded from the cohort due to potentially insufficient utilization data;
5. 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;
6. Beneficiaries with hospice utilization were excluded from the cohort since the payment for these beneficiaries is based on excess savings and not a capitated rate;
7. Beneficiaries who did not complete the entire survey were excluded from the cohort due to potentially insufficient data;
8. Beneficiaries with Veterans Administration (VA) insurance were excluded from the cohort due to potentially insufficient utilization data; and
9. "Ghosts," or beneficiaries newly enrolled in Medicare in 2005 or 2006 with claims and imputed survey data, were excluded from the cohort because their utilization duplicated that of other beneficiaries included in the cohort.
10. Beneficiaries who died during the year but met all other criteria were included in the final cohort. Both Medigap and Managed Care (now referred to as Medicare Advantage) Organizations 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.
11. Beneficiaries newly enrolled in Medicare during the year were not included in the final cohort. These beneficiaries may have generated Medicare claims during the year, but they were not part of the survey process; their survey data had to be imputed using data for

beneficiaries who were enrolled during the entire year. The data for these new enrollees, therefore, do not represent their utilization but rather the utilization of other beneficiaries. As a result, these beneficiaries were not included in the calculation of OOPCs.

12. Beneficiaries who had hospice utilization were excluded from the final cohort.

## 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.

<b>TABLE 2.2 - SCREENING RESULTS 2005 MCBS</b>	
<b>Screening Criteria</b>	<b>Number of Beneficiaries Excluded</b>
Beneficiaries who did not complete at least one community interview	1,715
Beneficiaries interviewed in a facility	778
Beneficiaries with a health status other than E, VG, G, F, and P	48
Beneficiaries with less than 12 months of Part A/B enrollment	861
Beneficiaries with some MA-PD or MA coverage	2,570
Beneficiaries with ESRD status	90
Beneficiaries with one or more hospice payments	180
Beneficiaries with an incomplete survey	1,006
Beneficiaries with VA insurance	708
Ghost beneficiaries	685
Total number of beneficiaries excluded	4,381*

<b>TABLE 2.1 - SCREENING RESULTS 2006 MCBS</b>	
<b>Screening Criteria</b>	<b>Number of Beneficiaries Excluded</b>
Beneficiaries who did not complete at least one community interview	1,722
Beneficiaries interviewed in a facility	790
Beneficiaries with a health status other than E, VG, G, F, and P	60
Beneficiaries with less than 12 months of Part A/B enrollment	897
Beneficiaries with some MA-PD or MA coverage	3,069
Beneficiaries with ESRD status	107
Beneficiaries with one or more hospice payments	186
Beneficiaries with an incomplete survey	1,003
Beneficiaries with VA insurance	689
Ghost beneficiaries	696
Total number of beneficiaries excluded	4,791*

\* Note: The criteria used to screen beneficiaries from the final MOC cohort were NOT mutually exclusive.

### **2.2.1 FINAL MOC ORIGINAL MEDICARE COHORT**

Of the 11,089 beneficiaries in the 2005 MCBS file, 6,708 were retained in the final cohort that populates the five health status cells in the MOC OOPC database. Of the 11,048 beneficiaries in the 2006 MCBS file, 6,257 beneficiaries were used to populate the five health status cells in the OOPC database. Combined, the final FFS cohort thus consists of 12,965 beneficiaries. The following table shows the number of beneficiaries in the Medicare OM cohort by health status.

<b>TABLE 2.3 – 2005/2006 ORIGINAL MEDICARE BENEFICIARIES IN COHORT BY HEALTH STATUS</b>						
<b>Health Status</b>	<b>Excellent*</b>	<b>Very Good</b>	<b>Good*</b>	<b>Fair</b>	<b>Poor*</b>	<b>TOTAL</b>
<b>Number of Beneficiaries</b>	<b>1,771</b>	<b>3,563</b>	<b>4,185</b>	<b>2,426</b>	<b>1,020</b>	<b>12,965</b>

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

Data for all 12,965 beneficiaries in the OM cohort was used to develop the baseline MOC 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 ESTIMATES**

The following assumptions were made as a result of ongoing analysis of MCBS and PBP data, Medigap policies and plans, and CMS requirements to design and develop OOPC estimates for the MOC. 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 MOC, 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 estimate OOPCs.
4. MCBS sample weights were applied to each of the beneficiaries included in the final MOC cohort as part of the development of the OOPCs for OM Medicare, Medigap plans, and MA-PD or MA plans.
5. Mean OOPCs for each plan were produced for each age/health status cell. Where OOPCs for persons with chronic illnesses are displayed, costs for all beneficiaries—not just those in a specific cell group—were produced.
6. The 2005 and 2006 costs for Physician/Supplier events were inflated to 2011 costs using Berenson-Eggers Type of Service (BETOS) code inflation factors; all Health Care Procedure Codes (HCPCs) within a BETOS code are inflated by that same BETOS rate. These inflation factors were provided by OACT.
7. The 2005 and 2006 costs for Outpatient claims were converted to the 2011 Outpatient Perspective Payment System (PPS) by mapping HCPCs into APCs.
8. The 2011 APC payment information, a crosswalk of HCPCs to APCs, and a price list for the APCs were obtained from the CMS website. Fu Associates, Ltd. ran the calculations to apply the 2011 payments to the 2005 and 2006 claims for Outpatient events.
9. Long-term care costs were not included in the development of the OOPC estimates.
10. Skilled Nursing Facility (SNF) services were included in the development of the OOPC estimates.
11. Multiple records exist in the Record Identification Code (RIC) files that contain the same values for all data fields. According to CMS/ORDI, one of the perverse elements of a medical expenditure survey, such as the MCBS, is that the interview is frequently most demanding for those who are the sickest, since the interview length is dependent upon the amount of medical utilization reported. To reduce the reporting burden, the MCBS design allows individuals to report repeated utilization in a summary manner. For example, if an individual has physical therapy multiple times a week for several weeks, MCBS captures the utilization in summary form. This summary data was used to generate the correct number of events as part of the back-end processing. Often events generated from summary data appear to be duplicates, since each event will have the same begin and end date. These records are not mistakes; rather, they demonstrate how repeat utilization was collected and processed. As such, the information was included in the analysis.

12. The event-level data in the Medical Provider Event (MPE) file was not used because the previous data provided limited information for mapping an event to a PBP benefit.

### **3.2 ASSUMPTIONS RELATED TO THE CALCULATION OF MEDICARE ORIGINAL MEDICARE OUT-OF-POCKET COST ESTIMATES**

1. Beneficiaries enrolled in OM do not have any insurance other than Medicare.
2. Beneficiaries have enrolled in Medicare Part B at age 65.
3. Beneficiaries go to providers who accept Medicare assignment (i.e., no balance billing).
4. The MOC includes OOPC estimates for some non-Medicare covered benefits (i.e., drugs and dental services).
5. The MOC uses the MCBS total costs for utilization of non-Medicare covered services in selected event files (i.e., dental services).
6. Total OOPCs are equal to the monthly Part B premium amounts for a year, plus the sum of Inpatient Hospital, SNF, Drugs, Dental, Outpatient, Home Health, Physician/Supplier, and Durable Medical Equipment (DME) services.

### **3.3 ASSUMPTIONS RELATED TO THE CALCULATION OF MA-PD OR MA OUT-OF-POCKET COST ESTIMATES**

1. Where applicable, the MOC 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, Physician/Supplier 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 MOC calculation applies the service-category deductibles to annualized costs.
7. For benefits with a minimum and maximum cost share, the minimum cost share amount was used to calculate the OOPC estimate.
8. The calculation of the category cost equals the sum of the co-pay amount, plus the coinsurance amount, plus the category deductible.
9. If a plan indicates there is a service-category specific deductible amount, then that deductible amount is used to reduce the total costs for calculating the cost shares, and then added back in to determine the total cost for the category.
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. If a plan indicates that there is a plan-level maximum enrollee out-of-pocket amount applicable for *all* PBP service categories, then the calculated MA-PD or MA cost for the

overall plan was compared to the plan-level maximum, and the lesser of the two was used as the OOPC.<sup>3</sup> This calculation was applied to Medicare-covered or all benefits, as designated by the plan. If a separate maximum amount was indicated for Medicare-covered benefits, then this amount was compared to the total costs for Medicare-covered benefits, and the lesser of the two was used.

12. If a plan indicates that there is a plan-level maximum enrollee out-of-pocket amount, applicable for *a designated subset* of PBP service categories, then the calculated MA-PD or MA cost for the subset of PBP service categories was compared to the plan-level maximum, and the lesser of the two was used as the OOPC for the designated subset of PBP service categories. 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.
13. If a plan indicates that there is a plan-level deductible amount, then this deductible amount is used to reduce the total amount for services that is subject to cost sharing, and the deductible (or portion used) is included in the out-of-pocket costs calculated for each beneficiary<sup>4</sup>.
14. For Medicare Medical Savings Account Plans (MSA), assume 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 are zero once the deductible is met.
15. 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.
16. If a plan is a Dual Eligible Special Needs Plan (SNP), OOPCs are not estimated.

### **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 Psychiatric Hospital Service Category benefits were based on the following assumptions:

1. Each event in the MCBS Inpatient Event (IPE) file is considered one hospital stay.
2. MCBS events with a source of "Survey only" are excluded from the analysis.
3. Inpatient Psychiatric Hospital stays were identified using the Provider Number on the claim.

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<sup>3</sup> If a plan has a maximum that applies to both in- and out-of-network services then this maximum is used in the calculations.

<sup>4</sup> If a plan has deductible that applies to both in- and out-of-network services then this deductible is used in the calculations.

4. Inpatient Psychiatric Hospital costs were calculated separately in the MA-PD or MA OOPC estimates. However, under Medicare OM, the rules used to calculate the OOPC estimate do not distinguish between Inpatient Hospital Acute and Inpatient Psychiatric Hospital.
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 Co-pay per Stay amount was added to the total of the Co-pay 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 Co-pay 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 Co-pay 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 Co-pay per Stay, plus the Co-pay per Day was 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.
  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**

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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 assumptions used in the calculations for the basic type of MA-PD and PDP drug plans.

1. Each event in the 2005 and 2006 MCBS PME (i.e., Drug) file is considered one drug prescription. MCBS drug prescriptions are adjusted using OACT-provided survey underreporting of drug prescription counts to estimate total drug usage in 2011.<sup>5</sup>
2. Map each MCBS prescription by its drug name to a National Drug Code (NDC). Then, using a 2009 Proxy NDC-NDC crosswalk, the drugs are mapped in NDC proxy codes. A crosswalk between NDC proxies and Rxcui codes is then applied in order to map MCBS drugs to the 2011 Rxcui formularies. 2009 Prescription Drug Event (PDE) claims data was used to determine a representative average price for each prescription according to its Rxcui code.
3. Drugs that could not be mapped to an NDC proxy (and thus to an Rxcui code) were considered over-the-counter, non-prescription drugs and their costs were not included in OOPCs.
4. For MA-PD and PDP plans, each drug was mapped to a plan's formulary to obtain drug tier information. The Rxcui code in the lowest tier was selected.
5. The calculations also used generic substitution information as provided by Destination Rx to replace brand prices and associated copayments with those of their generic substitutes.

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<sup>5</sup> The prescription utilization adjustment for 2005 and 2006 MCBS data includes an initial underreporting adjustment and subsequent adjustments for increased usage up to the estimate year of 2011. The 2006-2011 utilization adjustment is: 1.19; the 2005-2011 utilization adjustment is 1.36.

6. The full cost of Part D-covered drugs not found on a plan's formulary was added to a plan's OOPC estimate.
7. The cost sharing (deductible and drug cost) for each beneficiary in any of the four Part D plan types (DS, BA, EA, AE) using PBP data was applied.
8. The calculation followed the Medicare Drug Plan Finder protocols for sorting drugs and assigning cost sharing at the various thresholds (deductible, initial coverage limit (ICL), catastrophic).
9. Additional plan features were incorporated, such as first dollar coverage and gap coverage, into the calculations. The legislated 2011 discounts for brand and generic drugs in the gap are also included.
10. Additional Assumptions for MA-PD and PDP Plans:
  - Calculations are for one-month supply of either In-Network Pharmacy, or In-Network Preferred Pharmacy, or In-Network Non-Preferred Pharmacy.
  - Low-income cost sharing is not to be included in the calculations.
11. For MA-Only (and OM plans), apply 2009 PDE average prices to MCBS prescription counts to calculate total non-covered drug cost (see below).
12. Each beneficiary's out-of-pocket costs were estimated under OM, MA-Only, and each MA-PD or PDP plan in the PBP data.
13. Finally, costs were averaged across health group for each plan and the Part D premium (if applicable) for each plan was added.

## **Dental**

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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 Utilization 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;
  - Extraction and Root Canal = Endodontics;
  - Crown, Bridge, Ortho, and Other = Prosthodontics;
  - Cleaning = Cleaning; and
  - X-rays = X-rays.
4. If the plan offers dental benefits as an Mandatory benefit, then the PBP co-pay and coinsurance cost share 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)**

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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 one 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 by 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 Co-pay per Stay plus the Co-pay per Day was 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), which was 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 Co-pay 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 Co-pay 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 Co-pay per Stay plus the Co-pay per Day was 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 to linking MCBS/MPE data to the services/benefits in the PBP was 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 co-pay amount (e.g., an outpatient surgery that includes lab tests and X-rays would all be provided for a single co-pay amount).

The following steps represent the basic approach taken to link claims and/or line items in the Outpatient, DME, Home Health, and Physician/Supplier 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, Physician/Supplier, Home Health, and DME) were subset to include only the records for the beneficiaries in the MOC cohort.
2. The claims in the Outpatient file were 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 Physician/Supplier 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, Physician Specialty Codes, Service Type, and/or Place of Service, depending upon prioritization (e.g., BETOS code is equal to Ambulance).
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 (e.g., Physician Specialty is equal to Ambulance Service Suppliers and BETOS code is equal to Local or Undefined Codes);
  - 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**

Ten PBP services/benefits were addressed as part of this analysis. These include Physician Specialist, Outpatient Labs, Outpatient X-Rays, Outpatient Hospital, Durable Medical Equipment (DME), Prosthetics/Orthotics, Renal Diseases, Part B Medicare-Covered Drugs, Part B Chemotherapy Drugs, and Medical/Surgical Supplies. 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 below.

##### **Physician Specialist (7d)**

All line items where the BETOS code is equal to “Specialist-Ophthalmology”, “Minor Procedures”, “Office/Home visit”, “Office visits – new”, or “Consultations” were mapped to the Physician Specialist (7d) service category.

##### **Outpatient Labs (8al)**

All line items where the BETOS code is equal to “Lab tests – other (non-Medicare fee schedule)” were mapped to the Outpatient Labs (8al) service category.

##### **Outpatient X-Rays (8bx) [Selected Services]**

All line items where the BETOS code is equal to “Standard imaging - chest” or “Standard imaging – musculoskeletal” were mapped to the X-Ray (8bx) service category.

##### **Outpatient Hospital (9a)**

All line items where the BETOS code is equal to “Hospital visit – initial” or “Hospital visit – subsequent” were mapped to the Outpatient Hospital (9a) service category.

##### **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 DME (11a) service category.

##### **Prosthetics/Orthotics (11b)**

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

### **Renal Diseases (12)**

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All line items where the BETOS code is equal to “Dialysis Services” were mapped to the Renal Dialysis (12) service category.

### **Part B Medicare-Covered Drugs (15m)**

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

### **Part B Chemotherapy Drugs (15c)**

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

### **Medical/Surgical Supplies (11bs)**

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All line items where the BETOS code is equal to “Medical/surgical supplies” were mapped to the Medical/Surgical supplies (11bs) service category.

Other line items where the BETOS code is equal to local codes and undefined codes and Other non-Medicare fee schedule were excluded from this analysis as these items could not be comfortably mapped into a specific PBP category/benefit.

## **4.2 PBP SERVICE CATEGORIES TO OUTPATIENT CLAIM MAPPING**

Twenty-four PBP services/benefits were addressed as part of this analysis. These include: Primary Care Physician (PCP), Renal Diseases, Comprehensive Outpatient Rehabilitation Facility (CORF), Ambulatory Surgical Center (ASC), ER Care, Ambulance, Renal Diseases, Mammography Screening, Outpatient Hospital, Urgently Needed Care, Pap Smears/Pelvic Exams, Mental Health, Physical Therapy/Speech, Occupational Therapy (OT), Immunizations, Cardiac Rehabilitation, Therapeutic Radiation, Physician Specialist, Diagnostic Radiological Services, Diagnostic Tests/Procedures, Outpatient Labs, Hearing Exams, Primary Care Physician (PCP), and Medical/Surgical Supplies. The mapping methodology for these PBP services/benefits to claims in the Outpatient file is presented below, in the order in which they were prioritized by the mapping analysis.

### **Primary Care Physician (PCP) (7a)**

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All claims where the BILL TYPE code is equal to “Clinic-Rural,” “Clinic-Independent,” or “Clinic-Reserved” were mapped to the PCP (7a) service category.

### **Renal Diseases (12)**

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All claims where the BILL TYPE code is equal to “Clinic-Hospital Based” or “Independent Renal Dialysis Facility” were mapped to the Renal Dialysis (12) service category.

### **CORF (3)**

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All claims where the BILL TYPE code is equal to “Clinic - CORF” were mapped to the CORF (3) service category.

### **ASC (9b)**

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All claims where the BILL TYPE code is equal to “Special Facility,” “ASC Surgery-Ambulatory Surgical Center,” or “ASC Surgery-Rural Primary Care Hospital” were mapped to the ASC (9b) service category.

### **ER Care (4a)**

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All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Emergency Room” were mapped to the ER Care (4a) service category.

### **Ambulance (10a)**

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All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Ambulance” were mapped to the Ambulance (10a) service category.

## **Renal Diseases (12)**

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All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Lab-Non-Routine Dialysis” or “Hemodialysis” were mapped to the Renal Dialysis (12) service category.

## **Mammography Screening (14h)**

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All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Other Imaging Services-Screening Mammography” were mapped to the Mammography Screening (14h) service category.

## **Outpatient Hospital (9a)**

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All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Operating Room Services” were mapped to the Outpatient Hospital (9a) service category.

All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Gastro-Intestinal (GI) Services,” “Ambulatory Care Services,” “Cardiology—Cardiac Cath,” or “Lithotripsy” were mapped to the Outpatient Hospital (9a) service category.

## **Urgently Needed Care (4b)**

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All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Clinic-Urgent Care Clinic” were mapped to the Urgently Needed Care (4b) service category.

## **Pap Smears/Pelvic Exams (14d)**

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All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Other Diagnostic Services-Pap Smear” were mapped to the Pap Smears/Pelvic Exams (14d) service category.

## **Mental Health (7e)**

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All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Clinic-Psychiatric,” “Medical Social Services,” “Psychiatric/Psychological Treatments,” or “Psychiatric/Psychological Services” were mapped to the Mental Health (7e) service category.

## **Physical Therapy/Speech (7i)**

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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 Physical Therapy/Speech (7i) service category.

### **Occupational Therapy (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 (7c) service category.

### **Immunizations (14b) - Flu Shot**

All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Vaccine Administration” OR the only REVENUE CENTER code on the claim is equal to “Injection” were mapped to the Immunizations (14b) - Flu Shot service category. These items are assumed to be for influenza vaccinations; however, there is no cost allowed for the influenza vaccine.

### **Cardiac Rehab (9d)**

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 Rehab (9d) service category.

### **Therapeutic Radiation (8br)**

All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Radiology-Therapeutic” were mapped to the Therapeutic Radiation (8br) service category.

### **Physician Specialist (7d)**

All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Oncology” were mapped to the Specialist (7d) service category.

### **Diagnostic Radiological Services (8bd)[selected services]**

All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “CT scan,” “MRI,” “EKG/ECG,” “EEG,” “PET,” or “Nuclear Medicine” were mapped to the Diagnostic Radiological Services (8bd) [selected services] service category.

All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Radiology-Diagnostic,” “Other Imaging Services - General,” “Other Imaging Services - Diagnostic Mammography,” “Other Imaging Services - Ultrasound,” or “Other Imaging Services - Other” were mapped to the Diagnostic Radiological Services (8bd) service category.

### **Diagnostic Tests/Procedures (8ad) [selected services]**

All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Cardiology-General” or “Cardiology - Stress Test” or “Other Diagnostic Services” were mapped to the Clinical/Diagnostic Tests/Procedures Lab (8ad) service category.

All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Other Therapeutic Services,” “Respiratory Services,” or “Pulmonary Function” were mapped to the Diagnostic Lab (8ad) service category.

### **Outpatient Labs (8al)**

All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Laboratory” were mapped to the Outpatient Labs (8al) service 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.

### **Primary Care Physician (PCP) (7a)**

All previously unmapped outpatient claims where at least one REVENUE CENTER code on the claim is equal to “Clinic—Pediatric,” “Professional Fees,” “Preventative Care Services—General,” or “Treatment or Observation Room” were mapped to the PCP (7a) service category.

### **Medical/Surgical 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/surgical supplies (11bs) service category.

The remaining claims in the file, comprising 0.5% of the total outpatient claims for the cohort, were excluded from the analysis.

### 4.3 PBP SERVICE CATEGORIES TO PHYSICIAN/SUPPLIER LINE ITEM MAPPING

Thirty-two PBP services/benefits were addressed as part of this analysis. These include: Immunizations, Ambulance, Inpatient Hospital (Acute) and Inpatient Psychiatric Hospital, SNF, ER Care, Urgently Needed Care, Primary Care Physician (PCP), Physician Specialist, Psychiatry, Chiropractic, Podiatry, Eye Exams, Hearing Exams, Mental Health, Occupational Therapy (OT), Physical Therapy (PT)/Speech Therapy, Other Healthcare Professionals, Comprehensive Dental, ASC, Mammography Screening, Pap Smears/Pelvic Exams, Renal Diseases, Diagnostic Procedures/Tests, Therapeutic Radiation, Outpatient Labs, Outpatient X-rays, Diagnostic Radiological Services, Outpatient Hospital, Part B Medicare-Covered Drugs, Medical/Surgical Supplies, and Durable Medical Equipment (DME). All other PBP services/benefits not listed were not addressed as part of this analysis.

The methodology for linking Inpatient Hospital and SNF events to line items in the Physician/Supplier 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.

The methodology for linking Outpatient services/benefits to line items in the Physician/Supplier 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.

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 Physician Supplier file are presented below, in order of priority.

#### **Immunizations (14b)**

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##### ***Influenza***

1. Medicare policy is that the co-pay for influenza immunizations is equal to \$0.
2. All line items where the BETOS code is equal to “Influenza Immunization” were mapped to the Immunizations (14b) service category.

##### ***Pneumococcal***

1. Medicare Policy is that the co-pay 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 (14b) service category.

#### **Ambulance (10a)**

---

1. All line items that occurred on the same day as an Outpatient ambulance service, where the BETOS code is equal to “Ambulance,” or 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 Outpatient Ambulance service.

2. All previously unmapped line items where the BETOS code is equal to “Ambulance,” or 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 service.

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

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1. All line items where the Date of the Service is on or within the Inpatient event Admission and Discharge dates and the PLACE OF SERVICE code is equal to “Inpatient Hospital,” “Inpatient Psychiatric Facility,” “ER-hospital,” or “Inpatient Comprehensive Rehab Facility” were bundled under the Inpatient stay.

### **SNF (2)**

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1. 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 “Inpatient Hospital,” “ER-hospital,” “Nursing Facility” or “SNF,” or the BETOS code is equal to “Nursing Home Visit” were bundled under the SNF category.

### **ER Care (4a)**

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1. All line items that occurred on the same day as an Outpatient ER visit, where the BETOS code is equal to “ER - visit,” or the PLACE OF SERVICE is equal to “Inpatient Hospital,” “Outpatient Hospital,” or “ER,” were bundled under ER.

### **Urgently Needed Care (4b)**

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1. All line items that occurred on the same day as an Outpatient Urgent Care visit were bundled under the Outpatient Urgent Care visit.

### **Primary Care Physician (PCP) (7a)**

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1. All line items that occurred on the same day as an Outpatient Clinic (independent or rural health) visit were bundled under the PCP category.
2. All line items that occurred on the same day as an Outpatient Clinic (pediatric, treatment, preventative, or professional) visit, where the PLACE OF SERVICE is equal to “Inpatient Hospital,” “Outpatient Hospital,” “ER,” “ASC,” “Birthing Center,” “Military Treatment Facility,” “Nursing Facility,” or “Other Unlisted Facility” were bundled under the PCP category.
3. 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,” “Internist,” or “Public Health or Welfare Agencies” were mapped as a PCP office visit.

4. All other line items that occurred on the same day (i.e., related items) for a PCP were bundled under the PCP office visit.
5. All previously unmapped line items where the BETOS code is equal to "Hospital Visit," "Nursing Home or Home Visit," or "ER Visit," and where the PHYSICIAN SPECIALTY code is equal to "PCP" (specified above), were mapped as PCP office visit.
6. All other line items that occurred on the same day (i.e., related items) for a PCP office visit were bundled under the PCP visit.
7. All previously unmapped line items where the BETOS code is equal to "Major Procedures," "Minor Procedures," "Ambulatory Procedures," "Eye Procedures," "Endoscopy," or "Specialist," and where the PHYSICIAN SPECIALTY code is equal to "PCP" (specified above), were mapped as a PCP office visit.
8. All other line items that occurred on the same day (i.e., related items) for a PCP were bundled under the PCP office visit.
9. All previously unmapped line items where the BETOS code is equal to "Other - Medicare Fee Schedule," "Other - Non-Medicare Fee Schedule," "Local Codes," or "Undefined Codes," and where the PHYSICIAN SPECIALTY code is equal to "PCP" (specified above), were mapped as a PCP office visit.
10. All line items where the BETOS code is equal to "Anesthesia," and the PHYSICIAN SPECIALTY code is equal to "PCP" (specified above), were bundled under the PCP office visit.
11. All previously unmapped line items where the BETOS code is equal to "Office Visit" and where the PHYSICIAN SPECIALTY code is equal to "Diag Lab (GPPP)" or "Diag X-ray" were mapped as a PCP office visit.

### **Physician Specialist (7d)**

---

1. All line items that occurred on the same day as an Outpatient Specialist visit, and the PLACE OF SERVICE is equal to "Inpatient Hospital," "Outpatient Hospital," "ER," "ASC," "Birthing Center," "Military Treatment Facility," or "Other Unlisted Facility," were bundled under the Outpatient Specialist visit.
2. 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 "Specialist," "Critical Care (Intensivists)," "Addiction Medicine," or "Rheumatology," were mapped as a Specialist office visit.
3. All other line items that occurred on the same day (i.e., related items) for a Specialist were bundled under the Specialist office visit.
4. All previously unmapped line items where the BETOS code is equal to "Hospital Visit," "Nursing Home or Home Visit," or "ER Visit," and where the PHYSICIAN SPECIALTY code is equal to "Specialist" (specified above), were mapped as a Specialist office visit.
5. All other line items that occurred on the same day (i.e., related items) for a Specialist were bundled under the Specialist office visit.
6. All previously unmapped line items where the BETOS code is equal to "Major Procedures," "Minor Procedures," "Ambulatory Procedures," "Endoscopy," "Eye Procedures," or "Specialist," and where the PHYSICIAN SPECIALTY code is equal to "Specialist" (specified above), were mapped as a Specialist office visit.

7. All other line items that occurred on the same day (i.e., related items) for a Specialist were bundled under the Specialist office visit.
8. 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 Specialist office visit.
9. All previously unmapped line items where the BETOS code is equal to “Other - Medicare Fee Schedule,” “Other - Non-Medicare Fee Schedule,” “Other”, “Local Codes,” or “Undefined Codes,” and where the PHYSICIAN SPECIALTY code is equal to “Specialist” (specified above), were mapped as a Specialist office visit.
10. All line items where the BETOS code is equal to “Anesthesia” and the PHYSICIAN SPECIALTY code is equal to “Specialist” (specified above) were bundled under Specialist.
11. All previously unmapped line items where the BETOS code is equal to “Chiropractic” and where the PHYSICIAN SPECIALTY code is equal to “Specialist” (specified above), were mapped as a Specialist office visit.

### **Psychiatry (7h)**

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1. 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 “Psychiatry” or “Neuropsychiatry,” were mapped as a Psychiatry office visit.
2. All other line items that occurred on the same day (i.e., related items) for a Psychiatrist were bundled under the Psychiatry office visit.
3. All previously unmapped line items where the BETOS code is equal to “Hospital Visit,” “Nursing Home or Home Visit,” or “ER Visit,” and where the PHYSICIAN SPECIALTY code is equal to “Psychiatry” (specified above), were mapped as a Psychiatry office visit.
4. All other line items that occurred on the same day (i.e., related items) for a Psychiatrist were bundled under the Psychiatry office visit.
5. 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 “Psychiatry” (specified above), were mapped as a Psychiatry office visit.
6. All other line items that occurred on the same day (i.e., related items) for a Psychiatrist were bundled under the Psychiatry office visit.
7. All previously unmapped line items where the BETOS code is equal to “Other - Medicare Fee Schedule,” “Other - Non-Medicare Fee Schedule,” “Local Codes,” or “Undefined Codes,” and where the PHYSICIAN SPECIALTY code is equal to “Psychiatry” (specified above), were mapped as a Psychiatry office visit.

### **Chiropractic (7b)**

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1. All line items where the PHYSICIAN SPECIALTY code is equal to “Chiropractic” were mapped as a Chiropractic visit.

## **Podiatry (7f)**

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1. All line items where the BETOS code is equal to “Office Visit” (e.g., new or established), “Consultations,” or “Nursing Home or Home Visit,” and where the PHYSICIAN SPECIALTY code is equal to “Podiatry,” were mapped as a Podiatry office visit.
2. All other line items that occurred on the same day (i.e., related items) for Podiatry were bundled under the Podiatry office visit.
3. All previously unmapped line items where the BETOS code is equal to “Major Procedures,” “Minor Procedures,” “Ambulatory Procedures,” “Endoscopy,” “Hospital visit,” or “Specialist,” and where the PHYSICIAN SPECIALTY code is equal to “Podiatry,” were mapped as a Podiatry office visit.
4. All other line items that occurred on the same day (i.e., related items) for Podiatry were bundled under the Podiatry office visit.
5. All previously unmapped line items where the BETOS code is equal to “Other - Medicare Fee Schedule,” “Other - Non-Medicare Fee Schedule,” “Local Codes,” or “Undefined Codes,” and where the PHYSICIAN SPECIALTY code is equal to “Podiatry,” were mapped as a Podiatry office visit.
6. All previously unmapped line items where the BETOS code is equal to “Hospital Visit,” and where the PHYSICIAN SPECIALTY code is equal to “Podiatry,” were mapped as a Podiatry office visit.

## **Eye Exams (17a)**

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1. 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 “Optometry,” were mapped as an Eye Exam visit.
2. All other line items that occurred on the same day (i.e., related items) for Optometry were bundled under the Eye Exam visit.
3. All previously unmapped line items where the BETOS code is equal to “Hospital Visit,” “Nursing Home or Home Visit,” or “ER Visit,” and where the PHYSICIAN SPECIALTY code is equal to “Optometry” (specified above), or Independent Diagnostic Testing Facility and SERVICE TYPE is equal to Vision items/services, were mapped as an Eye Exam visit.
4. All other line items that occurred on the same day (i.e., related items) for Optometry were bundled under the Eye Exam visit.
5. All previously unmapped line items where the BETOS code is equal to “Major Procedures,” “Minor Procedures,” “Ambulatory Procedures,” “Endoscopy,” “Eye Procedures,” or “Specialist,” and the PHYSICIAN SPECIALTY code is equal to “Optometry,” were mapped as an Eye Exam visit.
6. All other line items that occurred on the same day (i.e., related items) for Optometry were bundled under the Eye Exam visit.
7. All previously unmapped line items where the BETOS code is equal to “Specialist,” and the PHYSICIAN SPECIALTY code is equal to “Independent Diag Testing Facility,” and SERVICE TYPE is equal to “Vision items/services” and PACE is equal to “Office” were mapped as an Eye Exam visit.

### **Hearing Exams (18a)**

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

### **Mental Health (7e)**

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1. All line items that occurred on the same day as an Outpatient Mental Health visit, where the PHYSICIAN SPECIALTY code is equal to “Psychiatry,” “Psychologist,” “Clinical Psychologist,” or “Licensed Clinical Social Worker” are bundled under the Outpatient Mental health 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 visit.

### **Occupational Therapy (OT) (7c)**

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1. All line items where the PHYSICIAN SPECIALTY code is equal to “Occupational Therapist” were mapped as an Occupational Therapy visit.

### **Physical Therapy (PT)/Speech Therapy (7i)**

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1. All line items where the PHYSICIAN SPECIALTY code is equal to “Physical Therapist” or “Physiotherapy” were mapped as a Physical Therapy visit.
2. All previously unmapped line items where the BETOS code is equal to “Major Procedures,” “Minor Procedures,” “Ambulatory Procedures,” “Endoscopy,” “Eye Procedures,” or “Specialist,” and the PHYSICIAN SPECIALTY code is equal to “Independent Physiological Laboratory,” were mapped as a Physical Therapy visit.
3. All previously unmapped line items where the BETOS code is equal to “Other - Medicare Fee Schedule,” “Other - Non-Medicare Fee schedule,” “Local codes,” or “Undefined codes,” and where the PHYSICIAN SPECIALTY code is equal to “Independent Physiological Laboratory,” were mapped as a Physical Therapy visit.

### **Other Healthcare Professionals (7g)**

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1. 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 “Certified Nurse Midwife,” “Certified Registered Nurse Anesthetist (CRNA), Anesthesia Assistant,” “Nurse Practitioner,” “Certified Clinical Nurse Specialist,” “Preventive Medicine,” or “Physician Assistant,” were mapped as an Other Healthcare Professionals office visit.
2. All other line items that occurred on the same day (i.e., related items) for these Physicians were bundled under the Other Healthcare Professionals office visit.

3. All previously unmapped line items where the BETOS code is equal to “Hospital Visit,” “Nursing Home or Home Visit,” or “ER Visit,” and where the PHYSICIAN SPECIALTY code is equal to “Other Healthcare Professionals” (specified above), were mapped as an Other Healthcare Professionals office visit.
4. All other line items that occurred on the same day (i.e., related items) for Other Healthcare Professionals were bundled under the Other Healthcare Professionals office visit.
5. All previously unmapped line items where the BETOS code is equal to “Major Procedures,” “Minor Procedures,” “Ambulatory Procedures,” “Endoscopy,” “Eye Procedures,” or “Specialist,” and where the PHYSICIAN SPECIALTY code is equal to “Other Healthcare Professionals” (specified above), were mapped as an Other Healthcare Professionals office visit.
6. All other line items that occurred on the same day (i.e., related items) for Other Healthcare Professionals were bundled under Other Healthcare Professionals office visit.
7. All previously unmapped line items where the BETOS code is equal to “Other - Medicare Fee Schedule,” “Other - Non-Medicare Fee Schedule,” “Local Codes,” or “Undefined Codes,” and where the PHYSICIAN SPECIALTY code is equal to “Other Healthcare Professionals” (specified above), were mapped as an Other Healthcare Professionals office visit.
8. All line items where the BETOS code is equal to “Anesthesia” and the PHYSICIAN SPECIALTY code is equal to “CRNA” were bundled under Other Healthcare Professionals office visit.

### **Comprehensive Dental (16b)**

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1. 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 “Oral Surgery (Dentists Only),” were mapped as a Dental office visit.
2. All other line items that occurred on the same day (i.e., related items) for Oral Surgery (Dentists Only) were bundled under the Dental office visit.
3. 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 “Dental” (specified above), were mapped as a Dental office visit.
4. All other line items that occurred on the same day (i.e., related items) for Oral Surgery (Dentists Only) were bundled under the Dental office visit.
5. All previously unmapped line items where the BETOS code is equal to “Other - Medicare Fee Schedule,” “Other - Non-Medicare Fee Schedule,” “Local Codes,” or “Undefined Codes,” and where the PHYSICIAN SPECIALTY code is equal to “Oral Surgery (Dentists Only),” were mapped as a Dental office visit.

### **Ambulatory Surgical Center (ASC) (9b)**

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1. All line items that occurred on the same day as an Outpatient ASC visit, excluding those where the BETOS code is equal to “Office Visit” or “Consultation” with PLACE OF SERVICE equal to “Office,” were bundled under the ASC visit.

2. All 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 “Ambulatory Surgical Center,” were mapped as an ASC visit.
3. All other line items that occurred on the same day (i.e., related items) as the ASC visit were bundled under the ASC visit.

### **Mammography Screening (14h)**

1. All line items that occurred on the same day as an Outpatient Mammography Screening, where the BETOS code is equal to “Standard Imaging - Breast,” were bundled under Outpatient Screening Mammography.
2. All line items where the PHYSICIAN SPECIALTY code is equal to “Mammography Screening Center” were mapped as a Screening Mammography visit.

### **Pap Smears/Pelvic Exams (14d)**

1. All line items that occurred on the same day as an Outpatient Pap Smear were bundled under Outpatient Pap Smear.

### **Renal Diseases (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 the Outpatient Dialysis service.
2. All previously unmapped line items where the BETOS code is equal to “Dialysis” were mapped as a Dialysis service.

### **Diagnostic Procedures/Tests (8ad)**

1. All previously unmapped line items where the PHYSICIAN SPECIALTY code is equal to “Independent Diagnostic Testing Facility” and the BETOS code is equal to “Major Procedure—cardio”, “Minor Procedure”, “Ambulatory procedure”, or “Local codes” were mapped as a Diagnostic Test/Procedures.

### **Therapeutic Radiological Services (8br)**

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 Radiation Therapy visit.
2. All previously unmapped line items where the BETOS code is equal to “Oncology” were mapped as a Therapeutic Radiation visit.

### **Outpatient Labs (8al)**

1. All line items that occurred on the same day as an Outpatient lab service, and the PLACE OF SERVICE is equal to “Inpatient Hospital,” Outpatient Hospital,” ER,” “ASC,”

“Birthing Center,” “Military Treatment Facility,” “Nursing Facility,” or “Other Unlisted Facility” were bundled under the Outpatient lab service.

2. All previously unmapped line items where the PHYSICIAN SPECIALTY code is equal to “Clinical Lab (Billing Independently)” were mapped as a Lab service.
3. All previously unmapped line items where the BETOS code is equal to “Lab Tests” or “Other Tests” were mapped as a Lab service.
4. All previously unmapped line items where the BETOS code is equal to “Local codes” or “Specialist,” and the SERVICE TYPE is equal to “Diag. Lab,” were mapped as a Lab service.
5. All previously unmapped line items where the PHYSICIAN SPECIALTY code is equal to “Diagnostic Lab” and the BETOS code is equal to “Minor Procedures”, SERVICE TYPE is equal to “Diag Lab” and PLACE is equal to “Office” were mapped as a Lab service.

### **Outpatient X-rays (8bx) [selected services]**

1. All line items that occurred on the same day as an Outpatient X-ray visit, where the BETOS code is equal to “Imaging,” and the PLACE OF SERVICE is equal to “Inpatient Hospital,” Outpatient Hospital,” ER,” “ASC,” “Birthing Center,” “Military Treatment Facility,” “Nursing Facility,” or “Other Unlisted Facility” were bundled under the Outpatient X-ray visit.
2. All previously unmapped line items where the PHYSICIAN SPECIALTY code is equal to “Portable X-ray Supplier” were mapped as an X-ray visit.
3. All previously unmapped line items where the BETOS code is equal to “Standard imaging,” “Echography,” or “Imaging/Procedure” were mapped as an X-ray visit.
4. All previously unmapped line items where the PHYSICIAN SPECIALTY code is equal to “Diagnostic X-ray” and the BETOS code is equal to “Minor Procedure”, “Ambulatory procedure” and the SERVICE TYPE is equal to “X-ray” were mapped as an X-ray visit.

### **Diagnostic Radiological Services (8bd)[selected services]**

1. All line items that occurred on the same day as an Outpatient complicated X-ray visit, where the BETOS code is equal to “Imaging,” and the PLACE OF SERVICE is equal to “Inpatient Hospital,” Outpatient Hospital,” ER,” “ASC,” “Birthing Center,” “Military Treatment Facility,” “Nursing Facility,” or “Other Unlisted Facility,” were bundled under the Outpatient complicated X-ray visit.
2. All previously unmapped line items where the BETOS code is equal to “Advanced Imaging” were mapped as a complicated X-ray visit. The maximum cost share will be applied to these services.

### **Outpatient Hospital (9a)**

1. All line items that occurred on the same day as an Outpatient Hospital visit, and where the PLACE OF SERVICE is equal to “Inpatient Hospital,” “Outpatient Hospital,” “ER,” “ASC,” “Birthing Center,” “Military Treatment Facility,” “Nursing Facility,” or “Other Unlisted Facility,” were bundled under the Outpatient Hospital visit.

2. All previously unmapped line items where the BETOS code is equal to “Oncology-Other” and PLACE OF SERVICE is equal to “Outpatient Hospital” and TYPE OF SERVICE is equal to “Surgery” were mapped as an Outpatient Hospital service.
3. All previously unmapped line items where the BETOS code is equal to “Chemotherapy” were mapped as an Outpatient Hospital service.
4. All previously unmapped line items where the BETOS code is equal to “Anesthesia” and the PLACE OF SERVICE is equal to “Outpatient Hospital” were bundled under Outpatient Hospital service.

#### **Part B Medicare-Covered Drugs (15m)**

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1. All previously unmapped line items where the BETOS code is equal to “Other drugs,” were mapped as a Medicare-covered Part B Rx Drug benefit.

#### **Medical/Surgical Supplies (11bs)**

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1. All line items where the BETOS code is equal to “Medical/Surgical Supplies” were mapped as a Medical supplies benefit.

#### **DME (11a)**

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1. All line items where the BETOS code is equal to “DME/Orthotics” and PHYSICIAN SPECIALTY is equal to “Otolaryngology” and SERVICE TYPE is equal to DME, prosthetics, orthotics and PLACE = Office were mapped as a DME benefit.

## 5. CALCULATION OF OM OUT-OF-POCKET COST ESTIMATES

The OOPCs for OM beneficiaries included in the cohort were calculated using the utilization reported in the MCBS 2005 and 2006 cost and use files. The calculations assume that beneficiaries have enrolled in Medicare Part B at age 65, and that beneficiaries enrolled in OM do not have any insurance other than Medicare. The calculations, described in detail below, produce OOPCs equal to the monthly Part B premiums, plus the sum of Inpatient Hospital, SNF, Outpatient, Physician/Supplier, and DME services. In addition, the OOPCs include estimates for important non-Medicare covered benefits like drugs and dental services.

### 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' original 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.<sup>6</sup> Acute inpatient and psychiatric inpatient utilization are calculated the same way in the MOC.

The beneficiary pays the Part A Inpatient Hospital coinsurance \$283 per day for days 61-90 and \$566 per day for days 91-150. Beneficiary pays 100% of the cost beyond day 150.

#### **For Days 61-90:**

1. Exclude all events from the RICIFE file where source = "1" (Survey Only).
2. All events from the RICIFE file, where the event Begin Dates or End Dates are not missing, were selected and sorted by Beneficiary, Begin Date, and End Date.
3. All events from the RICIFE file where Utilization Days are greater than zero (i.e., Utilization Days greater than zero identify events that are Medicare covered stays only) were selected.
4. If the total number of Coinsurance Days for an event is greater than zero, then the number of Coinsurance Days was multiplied by \$283.<sup>7</sup>

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<sup>6</sup> 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.

<sup>7</sup> The Coinsurance Days field in the RICIFE file represents a count of Medicare covered Inpatient Hospital days 61 through 90 used by the beneficiary. For example, a Coinsurance Days field value of "2" translates to Medicare covered Inpatient Hospital days 61 through 62. Medicare covered Inpatient Hospital days 1 through 60 do not receive a coinsurance charge in the OOPC calculations.

### **For Days 91-150:**

1. Exclude all events from the RICIFE file where source = “1” (Survey Only).
2. All events from the RICIFE file where the event Begin Dates or End Dates are not missing were selected and sorted by Beneficiary, Begin Date, and End Date.
3. All events from the RICIFE file where Utilization Days are greater than zero (i.e., Utilization Days greater than zero identify events that are Medicare covered stays only) were selected.
4. If the number of Lifetime Reserve Days used for an event is greater than zero, then the number of Lifetime Reserve Days was multiplied by \$566.<sup>8</sup>

### **Medicare Part A Hospital Deductible**

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Medicare covers 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 may be used only once during the beneficiary's lifetime.<sup>9</sup>

The beneficiary pays \$1,132 deductible per benefit period.

1. Exclude all events from the RICIFE file where source = “1” (Survey Only).
2. All events from the RICIFE file where the event Begin Dates or End Dates are not missing were selected and sorted by Beneficiary, Begin Date, and End Date.
3. All events from the RICIFE file where Utilization Days are greater than zero (i.e., Utilization Days greater than zero identify events that are Medicare covered stays only) were selected.
4. The deductible (\$1,132) was assigned to the first event for each Beneficiary.
5. For Beneficiaries with multiple events, it was determined if the Medicare stay event was part of the same benefit period by calculating the number of days between the first event's end date and the second event's begin date. If the difference was greater than 60 days, then a deductible (\$1,132) was assigned to the second event. Otherwise, the second event deductible was equal to zero.

### **Summing Medicare Covered Inpatient Hospital Costs**

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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.

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<sup>8</sup> The Lifetime Reserve Days field in the RICIFE file represents a count of Medicare covered Inpatient Hospital lifetime reserve days 91 through 150 used by the beneficiary. For example, a Lifetime Reserve Days field value of “2” translates to Medicare covered Inpatient Hospital lifetime reserve days 91 through 92.

<sup>9</sup> 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**

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A Medicare beneficiary is eligible for 100 days of care in a SNF during each benefit period.<sup>10</sup> The beneficiary does not pay SNF coinsurance for days 1-20. The beneficiary pays the Part A SNF coinsurance \$141.50 for days 21-100. The beneficiary pays 100% for all days over 100 in a SNF.

1. Exclude all events from the RICIFE file where source = “1” (Survey Only).
2. All events from the RICIUE file where the event Begin Dates or End Dates are not missing were selected and sorted by Beneficiary, Begin Date, and End Date.
3. All events from the RICIUE file where Utilization Days are greater than zero (i.e., Utilization Days greater than zero identify events that are Medicare covered stays only) were selected.
4. If the total number of Coinsurance Days for an event is greater than zero, then the number of Coinsurance Days was multiplied by \$141.50.<sup>11</sup>

## **5.2 NON-MEDICARE COVERED INPATIENT AND SNF SERVICES**

The following information is necessary to calculate the Non-Medicare Covered Inpatient and SNF OOPCs for individuals participating in CMS’ original OM program.

### **Inpatient Hospital Care**

1. Exclude all events from the RICIFE file where source = “1” (Survey Only).
2. All events from the RICIFE file where the event Begin Dates or End Dates are not missing were selected and sorted by Beneficiary, Begin Date, and End Date.
3. All events from the RICIFE file where Utilization Days are less than or equal to zero (i.e., Utilization Days less than or equal to zero identify events that are non-Medicare covered stays only) were selected.
4. Total Expenditures was used to determine the Non-Medicare covered OOPC for the event.
5. The OOPCs based on the Total Expenditures are adjusted from 2005 and 2006 utilization dollars to 2011 utilization dollars using inflation factors provided by OACT (see Appendix C: Inflation Factors).

### **SNF Care**

1. Exclude all events from the RICIFE file where source = “1” (Survey Only).

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<sup>10</sup> 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.

<sup>11</sup> The Coinsurance Days field in the RICIUE file represents a count of Medicare covered SNF days 21 through 100 used by the beneficiary. For example, a Coinsurance Days field value of “2” translates to Medicare covered SNF days 21 through 22. Medicare covered SNF days 1 through 20 do not receive a coinsurance charge in the OOPC calculations.

2. All events from the RICIUE file where the event Begin Dates or End Dates are not missing were selected and sorted by Beneficiary, Begin Date, and End Date.
3. All events from the RICIUE file where Utilization Days are less than or equal to zero (i.e., Utilization Days less than or equal to zero identify events that are non-Medicare covered stays only) were selected.
4. Total Expenditures was used to determine the Non-Medicare covered OOPC for the event.
5. The OOPCs based on the Total Expenditures are adjusted from 2005 and 2006 utilization dollars to 2011 utilization dollars using inflation factors provided by OACT (see Appendix C: Inflation Factors).

### **5.3 MEDICAL COSTS: PHYSICIAN AND OUTPATIENT SERVICES**

The following information is necessary to calculate the OOPCs for individuals participating in CMS' original OM program.

#### **Medicare Part B Premium**

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It was assumed that all members of the out-of-pocket cohort participate in Medicare Part B and pay the monthly \$115.40 premium (\$1,384.80 annually) in 2011.

1. This amount was applied to every Beneficiary.

#### **Medicare Part B Deductible**

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1. It was assumed that every Beneficiary with a positive Part B covered Allowed Charge from the Physician/Supplier, DME, and Outpatient files pays a \$162 deductible (assuming they have medical or outpatient services of at least \$162).
2. It was assumed that the Part B Deductible is subsumed under the total OOPCs calculated for Physician/Supplier and DME claims. It was also assumed that if the total OOPCs by Beneficiary is less than \$162, then the deductible is equal to OOPCs.
3. If the Beneficiary has no Physician/Supplier Allowed Charge amount, it was assumed that the deductible is paid under outpatient charges.

#### **Medical Costs**

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OM costs for participants in CMS' original OM program were calculated by using the claims files from the 2005 and 2006 MCBS cost and use data sets. For Physician/Supplier (P/S) and DME utilization, the reported coinsurance amount for each claim provides the basic OOPC estimate. The 2005 and 2006 coinsurance amounts were adjusted to reflect 2011 costs by applying the inflation rates according to individual BETOS codes for each claim.

For outpatient utilization, the estimation of OOPCs requires the use of several sources of data and assumptions. For most claims, the 2005 and 2006 outpatient claims files are applied, by line item, against the HCPC-based APC values for 2011. The APC values represent the coinsurance amounts that would have applied in 2011 for each HCPC reported in 2005 and 2006 claims utilization. For several HCPCs reported in the 2005 and 2006 outpatient claims, these APCs do

not exist. A cross-reference file reporting the reasons that no APCs exist, provided by CMS, was used. In most cases, a line item was bundled with another line item on a claim and did not warrant a separate coinsurance payment on the part of the beneficiary. For some line items, where no APC coinsurance amount is provided, the median coinsurance amount for a common HCPC was used as a substitute for the outpatient coinsurance amount. Finally, for revenue line items not having an APC or a HCPC matched to the physician-supplier or DME data, the coinsurance amount from the 2005 or 2006 outpatient claim level data was used. This data was inflated to 2011 using outpatient inflation information provided by OACT (see Appendix C: Inflation Factors).

Beneficiaries pay the Part B coinsurance (generally 20% of the Medicare-approved payment amount) or a copayment amount, which may vary according to the service. Coverage follows payment of the \$162 deductible.

1. Using the Outpatient file, which includes all claims for outpatient utilization by Bill Type and Revenue Center Code, observations where pbp\_cat = “excluded” or pbp\_cat = “flu shot” were excluded.
2. The Outpatient claims file was merged with the file that matches HCPCs to APC National Adjusted Coinsurance amounts, which are the OOPCs for most outpatient claim line items. This file, “Appendix B”, is available on the CMS web site.<sup>12</sup> For line items where the HCPCs have an APC Coinsurance amount, these are the OOPCs.<sup>13</sup> For every line item with an HCPC but no match to an APC Coinsurance amount, examine another file that lists reasons that HCPCs do not have APC values. For reasons C, E, N, we assume that services are billed elsewhere, bundled under other APC rates, or not paid under outpatient services. In this case, the coinsurances were set to zero. The coinsurance amounts were also set to zero for other revenue line items with nonsensical HCPCs, or identified as HCPCs specific to local areas.<sup>14</sup>
3. For Reason A, which are HCPCs not paid under OPPS, or Reason D, which includes HCPCs deleted since 2000, the P/S file was used to determine the median estimated OOPC amount across all HCPCs for each line item. The P/S file includes line item level data for all physician-supplier and DME utilization. The median estimated OOPC amounts were created from the median, by HCPC category, of the BETOS adjusted difference between the Allowed Charge and Medicare Payment Amount for each line item. This provides an outpatient coinsurance amount for these line items.
4. The outpatient coinsurance amounts above were summarized by both Beneficiary and claim to produce a beneficiary level outpatient coinsurance amount.
5. For those revenue items in the Outpatient claims file that do not have an HCPC or local HCPC codes, the major Revenue Center categories are: Pharmacy, Supplies, Anesthesia, Free Standing Clinic: Rural Health, and Recovery Room. For revenue center items

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<sup>12</sup> <http://www.cms.hhs.gov/HospitalOutpatientPPS/HORD/itemdetail.asp?filterType=none&filterByDID=-99&sortByDID=3&sortOrder=descending&itemID=CMS1224005&intNumPerPage=10> The most updated available version of the APCs is used.

<sup>13</sup> An APC coinsurance amount is either equal to the National Unadjusted Copayment, or if missing, the National Minimum Unadjusted Copayment.

<sup>14</sup> The HCPC “1440” was separately reported as “packaged” or as an “N” category by CMS.

associated with a claim that has other revenue centers with coinsurances calculated above, it is assumed that the revenue centers with missing HCPCs are packaged into other charges for the purposes of OOPCs. For claims having revenue centers with all missing HCPCs, there is no other readily available information on coinsurances or copayments. As a substitute, the Claim Level Coinsurance amount from the Outpatient file is used. This coinsurance estimate is adjusted for inflation from 2005/2006 to 2011 using an overall outpatient inflation factor obtained from OACT (see Appendix C: Inflation Factors). For line items where the HCPCs cannot be mapped to a median coinsurance amount in the P/S file, the coinsurance amount was set to zero.

6. For the physician supplier and DME component of Medical Costs, the P/S and the DME files were used to calculate the difference between the Allowed Charge and the Medicare Payment Amount for each line item. From the P/S and DME files, observations were included where PROCESS="A," PROCESS="R," or PROCESS="S," and where the Allowed Charges are greater than zero. Also, observations where pbp\_cat= "excluded from analysis" or pbp\_cat="flu shot – cat 14 no cost share" were excluded. The differences were adjusted for 2005/2006 to 2011 inflation by the BETOS inflation rates provided by OACT (see Appendix B: Inflation Factors). These differences were then summed across Beneficiary ID. The result is the medical/DME component of OOPCs (including the Part B deductible) for each beneficiary.
7. The medical/DME OOPCs and the outpatient coinsurance calculation were summed to the Beneficiary ID level to produce a total Part B OOPC by Beneficiary ID.

## 5.4 NON-MEDICARE COVERED OUTPATIENT SERVICES

The following information is necessary to calculate the OOPCs for individuals participating in CMS' original OM program.

### Prescription Drugs

Drug prescriptions are mapped by their MCBS drug name to Rxcui categories. An average drug price from the Prescription Drug Event (PDE) claims data file for 2009 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 2005 and 2006 data. Drugs that could not be mapped to an NDC proxy code 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 OM Medicare. Each event in the 2005 and 2006 MCBS Prescribed Medical Event (PME) (i.e. Drug) file is considered one drug prescription. MCBS drug prescriptions are adjusted using OACT-provided survey underreporting of drug prescription counts to estimate total drug usage in 2011.<sup>15</sup>

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.

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<sup>15</sup> The prescription utilization adjustment for 2005 and 2006 MCBS data includes an initial underreporting adjustment and subsequent adjustments for increased usage up to the estimate year of 2011. The 2006-2011 utilization adjustment is: 1.19; the 2005-2011 utilization adjustment is 1.36.

## **Dental**

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The beneficiary pays for 100% of all dental charges.

1. In the RICDUE file, the Total Expenditures were summed by beneficiary. This sum equals the out-of-pocket expenditures for dental expenditures.
2. This out-of-pocket estimate is adjusted for inflation from 2005/2006 to 2011 using a dental price inflation factor obtained from OACT (see Appendix C: Inflation Factors).

## 6. CALCULATION OF MEDIGAP OUT-OF-POCKET COST ESTIMATES

The OOPCs for beneficiaries selecting a Medigap plan are calculated in parallel with the OM OOPC calculations. For a given Medigap plan, Medigap premiums are summed with the OM OOPCs, described above, less the benefits provided by the Medigap plan. Depending on which plan is chosen, the Medigap benefit will cover inpatient, SNF, or Part B coinsurance amounts, and Part A or Part B deductibles. For all Medigap OOPC estimates, the full cost of prescription drugs is assumed to be equal to the OOPCs calculated for OM beneficiaries. This calculation is described above.

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

### 6.1 MEDIGAP PLAN CHOICES - MEDIGAP PLANS A THROUGH G

The Medigap calculations for the OOPC estimates were defined based on “2010 Choosing a Medigap Policy: A Guide to Health Insurance for People with Medicare,” 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. A description for the other four, recently introduced plans, K, L, M, and N, is also provided below. This table does not apply if a beneficiary lives in Massachusetts, Minnesota, or Wisconsin.

<b>TABLE 6.1 MEDIGAP PLANS AND THEIR BENEFITS</b>					
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F*</b>	<b>G</b>
Basic Benefit	Basic Benefit	Basic Benefit	Basic Benefit	Basic Benefit	Basic Benefit
		SNF Coinsurance	SNF Coinsurance	SNF Coinsurance	SNF Coinsurance
	Part A Deductible	Part A Deductible	Part A Deductible	Part A Deductible	Part A Deductible
		Part B Deductible		Part B Deductible	
				Part B Excess (100%)	Part B Excess (100%)
		Foreign Travel Emergency	Foreign Travel Emergency	Foreign Travel Emergency	Foreign Travel Emergency

\* Plan F also has a high deductible option. See specifications below in Section 6.1.3 entitled *HIGH DEDUCTIBLE OPTION PLAN F*.

Note: Beginning June 1, 2010, Plans E, H, I, J and High Deductible J are no longer available to new beneficiaries and are not displayed on the MOC.

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

### **6.1.1 BASIC BENEFITS**

#### **Inpatient Hospital Care (Plans A through G)**

This benefit covers the Part A coinsurance of \$283 per day for days 61-90 and \$566 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. The Medigap benefit is subtracted from the OM cost for each Inpatient event as described in the OM calculations above.

#### **Medical Costs (Plans A through G)**

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 \$162 deductible.

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

#### **Blood (Plans A through G)**

This 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 dataset. Therefore, this category was excluded from the Medigap OOPC calculations.

#### **Hospice Care (Plans A through G)**

This benefit now pays 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 (Plans B, C, D, F, G)**

This benefit covers \$1,132 per benefit period. This amount can change every year. The Medigap covered amount is subtracted from the OM cost for Inpatient events as described in the OM calculations above.

### **SNF Coinsurance (Plans C, D, F, G)**

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This benefit covers the Medicare-covered coinsurance amounts for each SNF event. The Medigap covered amount is subtracted from the OM cost for Inpatient events as described in the OM calculations above.

### **Medicare Part B Deductible (Plans C, F)**

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This benefit covers up to \$162 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) (Plans B, C, D, F, G)**

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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.

### **Medicare Part B Excess Charge (Plans F, G)**

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This benefit 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 MOC 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**

Plan F has a \$2,000 deductible with a \$250 deductible on foreign travel before other policy benefits are paid.<sup>16</sup>

For 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 \$2,000, then the OOPC for the High Deductible Plan F equals \$2,000 and the maximum of the difference between the Plan F OOPC sum and \$2,000—plus the beneficiary's OM OOPCs for Drug and

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<sup>16</sup> The high deductible amounts are adjusted according to inflation and are posted at the following website address: [http://www.cms.hhs.gov/Medigap/02\\_FandJ.asp](http://www.cms.hhs.gov/Medigap/02_FandJ.asp) 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.

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 PLANS K AND L**

The basic benefits for Plans K and L are different from the basic benefits offered in Medigap Plans A through G. Calculations for Plans K and L are carried out for all states except for Massachusetts and Minnesota.

### **6.2.1 BASIC BENEFITS**

#### **Inpatient Hospital Care**

For Plans K and L, the beneficiary pays no coinsurance for the first 60 days of a Medicare covered hospital stay. This benefit covers the Part A coinsurance of \$283 in 2011 per day for days 61-90 and \$566 in 2011 per day for days 91-150. See Basic Benefits for Plans A – G above (Out-of-Pocket Calculation). The Plans K and L additionally cover 100% of the cost for 365 extra days of hospital care during your lifetime after Medicare coverage ends.

#### **Medical Costs**

For Plan K, the benefit covers 50 percent of 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 \$162 Part B deductible. The Plan L benefit covers 75 percent of the Part B coinsurance, following payment of the Part B deductible.

The benefits provided for Medical Costs under Plan K and Plan L provisions are calculated according to other Medigap plan calculations coinsurance amounts for physician-supplier, DME, and outpatient claims. The calculations for these out-of-pocket costs are summarized above.

#### **Blood**

Under Plan K the benefit covers 50 percent of the first three pints of packed blood each calendar year. Under Plan L, the benefit covers 75 percent of the first three pints. Under both plans, if replacement blood is donated, then the cost of blood is zero.

As with other Medigap plans, the lack of data on blood charges prevents being able to calculate the resulting out-of-pocket cost.

#### **Hospice Care**

Plan K pays 50 percent of the hospice out-of-pocket cost for Medicare Part A Medicare-covered expenses and respite care. The Plan L pays 75 percent of the out-of-pocket costs.

## **6.2.2 EXTRA BENEFITS**

### **Medicare Part A Hospital Deductible**

For Plan K, this benefit covers 50 percent of the Medicare Part A Hospital Deductible \$1,132 (in 2011) per benefit period. The deductible amount can change every year. For Plan L, the benefit covers 75 percent of the \$1,132 deductible.

### **SNF Coinsurance**

Under Plan K and Plan L, the beneficiary pays nothing for the first 20 days of a Medicare-covered SNF stay. Under Plan K, the beneficiary pays 50 percent of the 2011 Medicare SNF coinsurance amount of \$141.50 for days 21-100. Under Plan L, the beneficiary pays 25 percent of the \$141.50 coinsurance amount.

Otherwise, the calculation of SNF out-of-pocket costs follows the above description for other Medigap plans.

### **Out-of-Pocket Annual Limits**

Medigap Plan K has a \$4,640 out-of-pocket limit in 2011. Once a beneficiary reaches the limit in paying out-of-pocket costs, the plan pays 100 percent of the Medicare Part and Part B copayments and coinsurance. Plan L has a comparably-applied \$2,320 out-of-pocket limit in 2011. The calculations are carried out similarly to those for the Minnesota Extended Benefit plan described below.<sup>17</sup>

## **6.3 PLAN M AND N**

The basic benefits for Plan M are the same as the basic benefits offered in Medigap Plans A through G. Plan N basic benefits are slightly different. Calculations for Plans M and N are carried out for all states except for Massachusetts.

### **6.3.1 BASIC BENEFITS**

#### **Inpatient Hospital Care**

For Plans M and N, the beneficiary pays no coinsurance for the first 60 days of a Medicare covered hospital stay. This benefit covers the Part A coinsurance of \$283 in 2011 per day for days 61-90 and \$566 in 2011 per day for days 91-150. See Basic Benefits for Plans A – G above (Out-of-Pocket Calculation). The Plans M and N, additionally cover 100% of the cost for 365 extra days of hospital care during your lifetime, after Medicare coverage ends.

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<sup>17</sup> The out-of-pocket annual limits are posted at the following website address:  
[http://www.cms.hhs.gov/Medigap/04\\_KandL.asp](http://www.cms.hhs.gov/Medigap/04_KandL.asp)

## **Medical Costs**

For Plan M, the benefit covers 100 percent of 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 \$162 Part B deductible. The Plan N benefit covers 100 percent of the Part B coinsurance, except up to a \$20 office visit copayment or up to a \$50 Emergency Room visit, all following payment of the Part B deductible.

The benefits provided for Medical Costs under Plan M and Plan N provisions are calculated according to other Medigap plan calculations coinsurance amounts for physician-supplier, DME, and outpatient claims. The calculations for these out-of-pocket costs are summarized above.

## **Blood**

Under Plans M and N, the benefit covers 100 percent of the first three pints of packed blood each calendar year.

## **Hospice Care**

Plans M and N pay 100 percent of the hospice out-of-pocket costs for Medicare Part A Medicare covered expenses and respite care.

### **6.3.2 EXTRA BENEFITS**

#### **Medicare Part A Hospital Deductible**

For Plan M, the benefit covers 50 percent of the Medicare Part A Hospital Deductible \$1,132 (in 2011) per benefit period. The deductible amount can change every year. For Plan N, the benefit covers 100 percent of the \$1,132 deductible.

#### **SNF Coinsurance**

Under Plan M and Plan N, the beneficiary pays nothing for the first 100 days of a Medicare-covered SNF stay. The beneficiary pays 100% for all days over 100 in a SNF.

## **6.4 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 six basic and extended policies are described below. Wisconsin offers additional Medigap Plans that are equivalent to the K, L, M, and N plan provisions described in the previous section. Minnesota offers additional Medigap Plans that are equivalent to the M and N plan provisions described in the previous section.

<b>TABLE 6.2 MEDIGAP EXEMPTED STATE PLANS</b>				
<b>Massachusetts Core</b>	<b>Massachusetts Supplement 1</b>	<b>Minnesota Basic</b>	<b>Minnesota Extended Basic *</b>	<b>Wisconsin Basic</b>
Basic Benefit	Basic Benefit	Basic Benefit	Basic Benefit	Basic Benefit
	Skilled Nursing Coinsurance	Skilled Nursing Coinsurance	Skilled Nursing Coinsurance	Skilled Nursing Coinsurance/ Non-Medicare Covered Stays
	Part A Deductible		Part A Deductible	
	Part B Deductible		Part B Deductible	
	Foreign Travel Emergency	Foreign Travel Emergency	Foreign Travel Emergency	
			At Home Recovery	At Home Recovery
Preventative Care	Preventative Care	Preventative Care	Preventative Care	
Inpatient Days: Mental Hospitals	Inpatient Days: Mental Hospitals			Inpatient Days: Mental Hospitals
		Outpatient Mental Health	Outpatient Mental Health	
			Usual and Customary Fees	

\*The Minnesota Extended Basic Plan provides benefits according to a \$1,000 ceiling on covered OOPCs. See the explanation below.

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

#### **6.4.1 BASIC BENEFITS**

##### **Inpatient Hospital Care Coinsurance (All Exempted State Plans)**

This benefit covers the Part A coinsurance of \$283 per day for days 61-90 and \$566 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. The Medigap Covered Amounts are deducted from the OM cost for each event.

##### **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 \$162 deductible.

The benefits provided for Medical Costs, under the basic benefit for these 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 (All Exempted State Plans)**

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 dataset. Therefore, this category was excluded from the Medigap OOPC calculations.

#### **6.4.2 EXTRA BENEFITS**

### **Medicare Part A Hospital Deductible (Massachusetts Supplemental 1 and Minnesota Extended Basic)**

This benefit covers \$1,132 per benefit period. This amount can change every year. The Medigap Covered Amount is deducted from the OM cost for each event.

### **SNF Coinsurance (Massachusetts Supplemental 1, Minnesota Basic, Minnesota Extended Basic, and Wisconsin Basic)**

This benefit covers up to \$141.50 per day for days 21-100 in a Skilled Nursing Facility (SNF). The Medigap Covered Amount is deducted from the OM cost for each event.

### **SNF Non-Medicare Covered Stays (Wisconsin Basic)**

This benefit covers the first 30 days of non-Medicare covered SNF care. No prior hospitalization is required. The Medigap Covered Amount is deducted from the OM cost for each event.

### **Medicare Part B Deductible (Massachusetts Core, Massachusetts Supplemental 1, and Minnesota Extended Basic)**

This benefit covers up to \$162 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) (Massachusetts Supplemental 1, Minnesota Basic, and Minnesota Extended Basic)**

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 (Massachusetts Core, Massachusetts Supplemental 1, and Wisconsin Basic)**

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 in addition to Medicare's 190 days per lifetime. The Inpatient Psychiatric Care additional days benefits provided by the Massachusetts Core, Massachusetts Supplemental 1, and Wisconsin Basic plans are not calculated in this version of the Medigap OOPC calculations.

### **Outpatient Mental Health (Minnesota Basic and Minnesota Extended Basic)**

For the Minnesota Basic and Extended Basic plans, coverage is 50% of the approved amount for most outpatient mental health services. Outpatient Mental Health utilization data is not readily available from the MCBS dataset. Therefore, this category is excluded from the Medigap OOPC calculations

### **Usual and Customary Fees (Minnesota Extended Basic)**

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 dataset. Therefore, this category is excluded from the Medigap OOPC calculations.

### **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 were 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 dental and prescription drug charges.

## 6.5 MEDIGAP PREMIUMS

A Medigap premium is applied to the Medigap OOPC calculations for each state and type of Medigap plan.<sup>18</sup> We are using industry representative premiums for 2010. 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:

1. An Excel file of 2010 premiums was used to create a SAS file;
2. Where states had regional or area-specific premiums, the average rate across regions for each state was calculated;
3. Plan names were then re-coded to correspond to the plan types being displayed in the MOC; and
4. Finally, each state's premiums were added to calculate the final Medigap plan OOPC estimates.

For the 2011 OOPC calculations, the 2010 premiums for the D, G, M, Wisconsin K, Wisconsin L, and the High Deductible F 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 were examined. For each state, the minimum available premium for each plan was selected. This premium was then added to the SAS file described above.

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<sup>18</sup> Before June 2010, premiums by age group, if available, were applied to the appropriate MOC age group category. Currently, the single statewide Medigap premium is generally used. In situations where the premiums are age-specific, the Medigap premium for the 65-69 age group was applied to the MOC 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 MOC.

## 7. CALCULATION OF HIGH-COST OUT-OF-POCKET COST ESTIMATES

The MOC OOPC calculation methodology also estimates OOPCs that may be imposed on Medicare beneficiaries by chronic or high-cost illnesses. It was determined that the Hierarchical Condition Category (HCC) model developed by CMS provided 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. Note that the 2007 HCC category version of the model was used to map diagnosis codes into categories.

The approach used to calculate OOPCs for beneficiaries with high-cost conditions is outlined below.

1. Utilization data for the beneficiaries in the 2005 and 2006 MCBS cohorts were run through the 2007 version of the DCG/HCC model that includes 70 HCC categories. Beneficiaries having one or more HCCs in 2005 or 2006 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) 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 MOC. The two selected chronic categories were Diabetes (HCCs 15-19) and Congestive Heart Failure - CHF (HCC 80). The selected catastrophic category was Acute Heart Condition – AHC (HCCs 81-82).
3. The descriptions for the HCC codes included in each category are listed in Table 7.1
4. 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.

<b>TABLE 7.1 HIERARCHICAL CONDITION CATEGORY MODEL</b>		
<b>HCC CATEGORY</b>	<b>HCC CODE</b>	<b>DESCRIPTION</b>
<b>Diabetes (N=)</b>	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
<b>Congestive Heart Failure (N=)</b>	80	Congestive Heart Failure
<b>Acute Heart Condition (N=)</b>	81	Acute Myocardial Infarction
	82	Unstable Angina or Other Acute Ischemic Heart Disease

## **8. DEVELOPMENT OF DISPLAY VALUES AND RANGES**

In the MOC, a beneficiary enters their zip code and self-reported health status. 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 Medicare OM plan. First, the mean monthly cost incurred for each plan and each cell group is calculated. This cost is allocated across several major category areas (inpatient, dental, 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 cell group is calculated for display. The OM cost is treated as another “plan”. Finally, for each plan, the mean estimate OOPC for the three selected chronic health categories described above is calculated.

## **APPENDIX A: 2005 AND 2006 MCBS DOCUMENTATION**

The MCBS is a continuous, multipurpose survey of a representative national sample of the Medicare population, conducted by the Office of Strategic Planning (OSP) of CMS through a contract with Westat. The central goals of the MCBS are: to determine expenditures and sources of payment for all services used by Medicare beneficiaries, including co-payments, deductibles, and non-covered services; to ascertain all types of health insurance coverage and relate coverage to sources of payment; and to trace processes over time, such as changes in health status, spending down to Medicaid eligibility, and the impacts of program changes.

There are approximately 12,000 beneficiaries in every year of the survey. There are 21 survey files, identified by a RIC code. There are also seven claims files that are linked to the survey respondents by a unique identification number.

Of the 21 survey files, there are 12 files that 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. There are seven files that contain “event” level health care utilization information; they are: Dental, Facility, Inpatient, Institutional, Medical Provider, Outpatient Hospital, and Prescription Drug. There are two utilization summary files, one at the service level (seven categories and home health and hospice) 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.

### **A.1 COHORT SELECTION**

These MCBS files provide the beneficiary information used to screen and select the cohort.

#### **RIC “A” File**

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Number of records (2005): 12,029

Number of records (2006): 11,984

This is the Administrative Summary file. This file contains historical information from the CMS Medicare enrollment database necessary to establish beneficiary status.

#### **RIC “PS” File**

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Number of records (2005): 12,029

Number of records (2006): 11,984

This is the Person Summary file. This file summarizes the utilization and expenditures by type of service and the expenditures by payer, yielding one record per person.

## **RIC “X” File**

---

Number of records (2005): 12,029 (One for each sample person.)

Number of records (2006): 11,984 (One for each sample person.)

This is the Survey Cross-Sectional Weights file. This file contains cross-sectional weights, including general-purpose weights and a series of replicate weights.

## **RIC “K” File**

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Number of records (2005): 12,029 (One for each person who completed an interview.)

Number of records (2006): 11,984 (One for each person who completed an interview.)

This is the Key Record file. The Unique Person Identification Number (BASEID) identifies the person interviewed. This file contains the type of interview conducted and other variables for classifying the beneficiary.

## **RIC “2” File**

---

Number of records (2005): 11,089 (One for each person who completed a community interview.)

Number of records (2006): 11,048 (One for each person who completed a community interview.)

This is the Survey Health Status and Functioning file. This file contains standard measures of Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs) as well as information about the sample person’s health, including:

- Self-reported height and weight;
- Self-assessment of vision and hearing;
- Use of preventive measures such as immunizations and mammograms;
- Avoidable risk factors such as smoking; and
- History of medical conditions.

## **RIC “4” File**

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Number of records (2005): 12,029 (One for each person who completed an interview.)

Number of records (2006): 11,984 (One for each person who completed an interview.)

This is the Survey Health Insurance file. This file summarizes the health insurance information provided by the sample people including both annual and monthly indicators of health insurance coverage by Medicare, Medicaid, Health Maintenance Organizations (HMOs), Premium Hospital Insurance (PHI), and other public plans.

## **RIC “8” File**

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Number of records (2005): 33,418 (One for each interview.)

Number of records (2006): 33,230 (One for each interview.)

This is the Survey Interview file. This file summarizes the characteristics of the interview, including type of questionnaire, duration, and whether or not the interview was conducted with a proxy respondent.

## **RIC “9” File**

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Number of records (2005): 12,029 (One for each sample person.)

Number of records (2006): 11,984 (One for each sample person.)

This is the Residence Time Line file. This file tracks the movement of individuals between community, facility, and skilled nursing facility settings. While the majority of respondents have only one setting throughout the year, the records allow for up to twenty occurrences of movement between a community and a facility setting.

## **A.2 CLAIMS FILES LINKED TO THE 2005 AND 2006 MCBS**

Seven Version I claims files are linked to the MCBS survey respondents by a unique identification number. These bill records represent services provided during calendar years 2005 and 2006 and processed by CMS. Four of the seven files were used in the development of the MOCOOPC calculations. These MCBS files provide the utilization information for the beneficiaries in the survey. Each of the four Version I claims files used to develop the MOCOOPCs are described below.

### **Home Health Bill**

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Number of records (2005): 1,914

Number of records (2006): 2,015

This is the Home Health Bill file. This file contains the home health bills for the MCBS population. Home health agencies generally bill on a cycle (e.g., monthly).

### **Outpatient Bill**

---

Number of records (2005): 44,313

Number of records (2006): 43,011

This is the Outpatient Bill file. This file contains the outpatient bills for the MCBS population. These bills are generally Part B services that are delivered through the outpatient department of a hospital (traditionally, a Part A provider).

## **Physician/Supplier Bill**

---

Number of records (2005): 459,304

Number of records (2006): 449,502

This is the Physician/Supplier Bill file. This file contains the Medicare Part B (physician, other practitioners, and suppliers including DME) claims for the MCBS population. These records reflect services such as doctor visits, laboratory tests, X-rays and other types of radiological tests, surgeries, inoculations, other services and supplies, and the use or purchase of certain medical equipment.

## **DME Bill**

---

Number of records (2005): 38,577

Number of records (2006): 37,962

This is the DME file. This file contains the Medicare Part B claims for the MCBS population that involve the use or purchase of certain medical equipment.

## **A.3 COST AND USE DATA LINKED TO THE 2005 AND 2006 MCBS**

There are sixteen types of records in the Cost and Use portion of the MCBS. These records provide use and cost information about goods and services that the beneficiaries used in calendar year 2005 and 2006, the costs associated with those services, and the share of the costs borne by all payers. Four of the sixteen records were used in the development of the MOC-OOPC calculations. Each of the four cost and use records that were used to develop the MOC-OOPCs are described below.

### **RIC “DUE” File**

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Number of records (2005): 11,734

Number of records (2006): 12,249

This is the Dental Events file. This file contains individual dental events for the MCBS population.

### **RIC “IPE” File**

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Number of records (2005): 4,916

Number of records (2006): 4,563

This is the Inpatient Hospital Events file. This file contains individual inpatient hospital events for the MCBS population.

### **RIC “IUE” File**

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Number of records (2005): 1,059

Number of records (2006): 1,056

This is the Institutional Events file. This file contains the individual short-term facility (usually SNF) stays for the MCBS population that were reported during a community interview or created through Medicare claims data.

### **RIC “PME” File**

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Number of records (2005): 359,566

Number of records (2006): 449,428

This is the Prescribed Medicine Event file. This file contains individual outpatient prescribed medicine events for the MCBS population.

## APPENDIX B: PART D BENEFIT ASSUMPTIONS – MA-PD & PDP PLANS

APPENDIX B TABLE 1

2011 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 (First Dollar Generic Coverage)	No Coverage	No Coverage	Yes, optional* <b>*If Yes, cost shares specified for generic drugs only.</b>	Yes, optional* <b>*If Yes, cost shares specified for generic drugs only.</b>
Deductible	\$310	\$310	\$310* or Plan-specified* or No Deductible <b>*Applies to brand drugs only if first dollar coverage exists.</b>	\$310* or Plan-specified* or No Deductible <b>*Applies to brand drugs only if first dollar coverage exists.</b>
ICL	\$2,840	\$2,840	\$2,840	\$2,840 or Plan-specified* or No ICL** <b>*Partial Gap Coverage if greater than \$2,840</b> <b>**Full Gap Coverage</b>
Gap Coverage	No Coverage	No Coverage	No Coverage	No Coverage or ICL Adjustment (see above) or Gap Tiers
Threshold (TROOP)	\$4,550	\$4,550	\$4,550	\$4,550
Threshold (Fixed Capitated Demos)	N/A	N/A	N/A	\$6,447.50
Post-Threshold Cost Shares	Greater of \$2.50 or 5% for generics (including brands treated as generic, or Greater of \$6.30 or 5% for all other drugs	Greater of \$2.50 or 5% for generics (including brands treated as generic, or Greater of \$6.30 or 5% for all other drugs or Post-Threshold Tiers or No Cost Sharing	Greater of \$2.50 or 5% for generics (including brands treated as generic, or Greater of \$6.30 or 5% for all other drugs or Post-Threshold Tiers or No Cost Sharing	Greater of \$2.50 or 5% for generics (including brands treated as generic, or Greater of \$6.30 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*. <b>*Coverage limit applies to Excluded Drugs tier only.</b>
Free First Fill	N/A	N/A	Yes, optional*. <b>*Apply \$0 co-pay to first Rx.</b>	Yes, optional*. <b>*Apply \$0 co-pay to first Rx.</b>
Charge Lesser of Copayment or Cost of the Drug	N/A	Yes, optional*.	Yes, optional*.	Yes, optional*.

## APPENDIX C: INFLATION FACTORS

To inflate the 2005/2006 costs on the MCBS event files and the Medicare claims to 2011 dollars, CMS provided the following inflation factors.

APPENDIX C TABLE 1			
FISCAL YEAR	RICIPE	RICIUE	RICDUE
	(INPATIENT HOSPITAL)	(SNF)	(DENTAL PRICES)
2006	3.7%	3.1%	5.2%
2007	3.4%	3.1%	5.1%
2008	3.3%	3.3%	4.5%
2009	3.6%	3.4%	4.0%
2010	2.1%	2.2%	4.0%
2011	2.6%	2.3%	4.2%

APPENDIX C TABLE 2			
CALENDAR YEAR	RICPME		
	(DRUGS)		
	PRICE	UTILIZATION & INTENSITY PER CAPITA	TOTAL
2006	3.5%	4.0%	7.6%
2007	1.4%	2.0%	3.4%
2008	2.5%	-0.2%	2.3%
2009	3.4%	0.9%	4.3%
2010	3.4%	1.2%	4.6%
2011	3.0%	1.6%	4.6%

APPENDIX C TABLE 3	
FISCAL YEAR	HHA
2006	3.7%
2007	3.1%
2008	3.0%
2009	2.9%
2010	2.0%
2011	3.0%

APPENDIX C TABLE 4	
FISCAL YEAR	OUTPATIENT
2006	3.7%
2007	3.4%
2008	3.3%
2009	3.0%
2010	2.1%
2011	2.4%

**APPENDIX C TABLE 5**

<b>PHYSICIAN/SUPPLIER AND DME</b>	<b>2005-2011 Increase</b>	<b>2006-2011 Increase</b>
<b>BETOS Code</b>		
D1A:Medical/surgical supplies	1.00	1.00
D1B:Hospital beds	1.00	1.00
D1C:Oxygen and supplies	1.00	1.00
D1D: Wheelchairs	1.00	1.00
D1E:Other DME	1.00	1.00
D1F:Orthotic devices	1.12365	1.12365
I1A:Standard imaging – chest	1.03236	1.03236
I1B:Standard imaging - musculoske	1.03236	1.03236
I1C:Standard imaging – breast	1.03236	1.03236
I1D:Standard imaging - contrast g	1.03236	1.03236
I1E:Standard imaging - nuclear me	1.03236	1.03236
I1F:Standard imaging – other	1.03236	1.03236
I2A:Advanced imaging - CAT: head	1.03236	1.03236
I2B:Advanced imaging - CAT: other	1.03236	1.03236
I2C:Advanced imaging - MRI: brain	1.03236	1.03236
I2D:Advanced imaging - MRI: other	1.03236	1.03236
I3A:Echography – eye	1.03236	1.03236
I3B:Echography - abdomen/pelvis	1.03236	1.03236
I3C:Echography – heart	1.03236	1.03236
I3D:Echography - carotid arteries	1.03236	1.03236
I3E:Echography - prostate, transr	1.03236	1.03236
I3F:Echography – other	1.03236	1.03236
I4A:Imaging/procedure	1.03236	1.03236
I4B:Imaging/procedure – other	1.03236	1.03236
M1A:Office visits – new	1.03236	1.03236
M1B:Office visits – established	1.03236	1.03236
M2A:Hospital visit – initial	1.03236	1.03236
M2B:Hospital visit – subsequent	1.03236	1.03236
M2C:Hospital visit - critical car	1.03236	1.03236
M3 :Emergency room visit	1.03236	1.03236
M4A:Home visit	1.03236	1.03236
M4B:Nursing home visit	1.03236	1.03236
M5A:Specialist – pathology	1.03236	1.03236
M5B:Specialist – psychiatry	1.03236	1.03236
M5C:Specialist – ophthamology	1.03236	1.03236
M5D:Specialist – other	1.03236	1.03236
M6 :Consultations	1.03236	1.03236
O1A:Ambulance	1.15174	1.12365
O1B:Chiropractic	1.03236	1.03236
O1C: Enteral and Parental	1.15174	1.12365
O1D:Chemotherapy	1.12292	1.15527
O1E:Other drugs	1.12292	1.15527

**APPENDIX C TABLE 5**

<b>PHYSICIAN/SUPPLIER AND DME</b>	<b>2005-2011 Increase</b>	<b>2006-2011 Increase</b>
<b>BETOS Code</b>		
O1F:Vision, hearing and speech se	1.12472	1.12472
O1G:Influenza immunization	0.92314	0.84305
P0 :Anesthesia	1.03236	1.03236
P1A:Major procedure – breast	1.03236	1.03236
P1B:Major procedure - colectomy	1.03236	1.03236
P1C:Major procedure - cholecystec	1.03236	1.03236
P1D:Major procedure – turp	1.03236	1.03236
P1E:Major procedure - hysterctomy	1.03236	1.03236
P1F:Major procedure - explor/deco	1.03236	1.03236
P1G:Major procedure – Other	1.03236	1.03236
P2A:Major procedure, cardiovascul	1.03236	1.03236
P2B:Major procedure, cardiovascul	1.03236	1.03236
P2C:Major Procedure, cardiovascul	1.03236	1.03236
P2D:Major procedure, cardiovascua	1.03236	1.03236
P2E:Major procedure, cardiovascul	1.03236	1.03236
P2F:Major procedure, cardiovascul	1.03236	1.03236
P3A:Major procedure, orthopedic -	1.03236	1.03236
P3B:Major procedure, orthopedic -	1.03236	1.03236
P3C:Major procedure, orthopedic -	1.03236	1.03236
P3D:Major procedure, orthopedic -	1.03236	1.03236
P4A:Eye procedure - corneal trans	1.03236	1.03236
P4B:Eye procedure - cataract remo	1.03236	1.03236
P4C:Eye procedure - retinal detac	1.03236	1.03236
P4D:Eye procedure – treatment	1.03236	1.03236
P4E:Eye procedure – other	1.03236	1.03236
P5A:Ambulatory procedures - skin	1.03236	1.03236
P5B:Ambulatory procedures - muscu	1.03236	1.03236
P5C:Ambulatory procedures - ingui	1.03236	1.03236
P5D:Ambulatory procedures - litho	1.03236	1.03236
P5E:Ambulatory procedures - other	1.03236	1.03236
P6A:Minor procedures – skin	1.03236	1.03236
P6B:Minor procedures - musculoske	1.03236	1.03236
P6C:Minor procedures - other (Med	1.03236	1.03236
P6D:Minor procedures - other (non	1.03236	1.03236
P7A:Oncology - radiation therapy	1.03236	1.03236
P7B:Oncology – other	1.03236	1.03236
P8A:Endoscopy – arthroscopy	1.03236	1.03236
P8B:Endoscopy - upper gastrointes	1.03236	1.03236
P8C:Endoscopy – sigmoidoscopy	1.03236	1.03236
P8D:Endoscopy – colonoscopy	1.03236	1.03236
P8E:Endoscopy – cystoscopy	1.03236	1.03236
P8F:Endoscopy – bronchoscopy	1.03236	1.03236

**APPENDIX C TABLE 5**

<b>PHYSICIAN/SUPPLIER AND DME</b>	<b>2005-2011 Increase</b>	<b>2006-2011 Increase</b>
<b>BETOS Code</b>		
P8G:Endoscopy - laparoscopic chol	1.03236	1.03236
P8H:Endoscopy – laryngoscopy	1.03236	1.03236
P8I:Endoscopy – other	1.03236	1.03236
P9A:Dialysis services	1.03236	1.03236
P9B:P9B	1.03236	1.03236
T1A:Lab tests - routine venipunct	0.96334	0.96334
T1B:Lab tests - automated general	0.96334	0.96334
T1C:Lab tests – urinalysis	0.96334	0.96334
T1D:Lab tests - blood counts	0.96334	0.96334
T1E:Lab tests – glucose	0.96334	0.96334
T1F:Lab tests - bacterial culture	0.96334	0.96334
T1G:Lab tests - other (Medicare f	0.96334	0.96334
T1H:Lab tests - other (non-Medica	0.96334	0.96334
T2A:Other tests – electrocardiogr	1.03236	1.03236
T2B:Other tests - cardiovascular	1.03236	1.03236
T2C:Other tests - EKG monitoring	1.03236	1.03236
T2D:Other tests - other	1.03236	1.03236
Y1 :Other - Medicare fee schedule	1.03236	1.03236
Y2 :Other - non-Medicare fee sche	1.03236	1.03236
Z1 :Local codes	1.03236	1.03236
Z2 :Undefined codes	1.03236	1.03236

## **APPENDIX D: OOPC DATABASE**

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

### **RECORD LAYOUTS**

Beginning with the Fall, 2011 estimates and website display, the structure of the MOC OOPC data was changed. The former Managedcare\_oop and pdp\_oop files were combined into one file, the pln\_oopc file. For the pln\_oopc file, there will be three records (three health status records) for every plan that is available in the MOC. If a plan has no data and is displayed in MOC, there will be three records with code 98 (n/a).

For the medigap\_oop file, there will be three records (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, MN2, MNM and MNN?. For WI, the simple plan type is WI1. For its “K” and “L” type plans, the simple plan types are WIK and WIL, respectively. For its “M” and “N” type plans, the simple plan types are WIM and WIN, respectively.

**Pln\_oopc File**

**APPENDIX D TABLE 1**

<b>FIELD NAME</b>	<b>DESCRIPTION</b>	<b>EXAMPLE/FOR MAT</b>	<b>NOTE</b>
Contract_id	Contract ID	H9999/S9999	
plan_id	Plan ID	001	
segment_id	Segment ID	0	
contract_year	Contract Year	2011	
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)
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)
plan_deductible	Average monthly plan deductible cost in health group, <b>excluding drug deductible.</b>	\$	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, <b>including deductible, excluding premium.</b> (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, plan_deductible, all_other_utilization, part_d_premium, and part_d_drugs	\$	

**Medigap\_oop File**

<b>APPENDIX D TABLE 2</b>		
<b>FIELD NAME</b>	<b>DESCRIPTION</b>	<b>EXAMPLE/FORMAT</b>
state_cd	State Abbreviation	VA, MD, MA, CA
simple_plan_type	Plan ID	A
cntret_yr	Contract Year	2011
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.	\$
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	\$
plan_ddctbl	Average monthly plan deductible cost in health group.	\$
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, plan_deductible, and all_other_utilization.	\$