Evaluation of the Part D Enhanced Medication Therapy Management (MTM) Model: Fourth Evaluation Report

Appendix B: Methodology and Supplemental Findings

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APPENDIX B   METHODOLOGY AND SUPPLEMENTAL FINDINGS

This appendix contains detailed information on the methodology and supplemental findings from the analyses presented in the Enhanced Medication Therapy Management (MTM) Fourth Evaluation Report. Section B.1 presents data sources used for all analyses in the report. Section B.2 presents impact analyses methodology. Next, Section B.3 through Section B.8 provide supplementary findings on Model impacts. Section B.9 presents supplemental findings on beneficiary enrollment in Enhanced MTM plans. Section B.10 presents supplemental findings on beneficiary eligibility and service receipt for Enhanced MTM programs. Finally, Section B.11 presents qualitative methods.

B.1   Data Sources

This appendix provides a summary of the data sources used for the Enhanced MTM Fourth Evaluation Report. Table B.1.1 lists the data sources used for calculating eligibility and service receipt statistics, and for matching and estimation of Model impacts on expenditures and utilization outcomes presented in Sections 3, 4, and 5.

Table B.1.1: Data Sources Used in Enhanced MTM Fourth Evaluation Report

Data Source	Time Period Covered	Access Date	Use
Common Working File (CWF)	2016-2020	April 2021	Difference-in-differences (DiD) Estimation: Parts A and B expenditures; Parts A and B health service utilization Comparison group matching: Parts A and B expenditures; Parts A and B health service utilization; Frailty measures; Hierarchical Condition Categories (HCC); HCC risk score Subgroup identification: Chronic conditions
Prescription Drug Event (PDE)	2016-2020	April 2021	DiD Estimation: Gross drug expenditures; Prescription drug utilization Comparison group matching: Gross drug expenditures; Prescription drug utilization Subgroup identification: Drug therapy problems
Enrollment Database (EDB)	2016-2020	March 2021	Comparison group matching: Parts A and B enrollment; Original reason for a beneficiary's entitlement to Medicare benefits; Dual status; end-stage renal disease (ESRD) status; Residence information
Common Medicare Environment (CME)	2016-2020	March 2021	Comparison group matching: Part D enrollment; Age; Gender; Race; low-income subsidy (LIS) status Eligibility and service receipt statistics: Part D enrollment Subgroup identification: Low-income subsidy, racial categories
Master Beneficiary Summary File (MBSF)	2016-2019	April 2021	Comparison group matching: Chronic condition information Subgroup identification: Chronic conditions

Data Source	Time Period Covered	Access Date	Use
Minimum Data Set (MDS)	2016-2020	March 2021	Comparison group matching: Long-term Institutional status
Dartmouth Atlas HRR-Zip Code Crosswalk File	2014-2018	December 2020	Comparison group matching: Hospital Referral Region (HRR) of residence
Health Plan Management System (HPMS)	2017-2020	December 2017, 2018, 2019, and 2020	Comparison group matching: Part D plan information
Prevention Quality Indicators Technical Specifications	N/A	Accessed July 2021	Information about diagnoses groups of ambulatory care-sensitive conditions (ACSCs)
Medi-Span Drug Database	N/A	Accessed April 2021	DiD estimation: Prescription drug utilization (Prescription drug classes) Subgroup identification: Drug therapy problems
Food and Drug Administration (FDA) Drug Crosswalks	N/A	Accessed April 2021	DiD estimation: Prescription drug utilization (Prescription drug types)
Enhanced MTM Encounter Data	2017-2020	July 2021	Eligibility and service receipt statistics: Enhanced MTM services
Medicare Advantage and Prescription Drug Plan system (MARx)	2017-2020	March 2021	Eligibility and service receipt statistics: Enhanced MTM eligibility
Intervention-specific eligibility data	2017-2020	February 2021	Eligibility and service receipt statistics: Enhanced MTM eligibility by intervention
Part D Reporting Requirements Data	2016-2020	June 2021	Eligibility and service receipt statistics: Traditional MTM eligibility and services

B.2   Impact Analyses Methodology

This appendix provides additional methodological details on analyses that estimate the impact of the Enhanced MTM Model on expenditures of beneficiaries enrolled in participating Plan Benefit Packages (PBPs).

Section B.2.1 presents the approach used to select the analytic cohort for analyses of Model impacts on beneficiaries enrolled in Model-participating plans ("all-enrollee analyses"), including the treatment group and appropriate comparators. Next, Section B.2.2 describes the sample construction for analyses of Model impacts on the beneficiary subgroups included in this report. Section B.2.3 defines and summarizes the outcome measures included in this report. Section B.2.4 presents the analytic models that produce the impact estimates. Finally, Section B.2.5 describes the algorithm that calculates changes in net expenditures for the Model.

B.2.1 Selection of Analytic Cohort and Covariate Summaries for All-Enrollee Analyses

To select the analytic cohort for all-enrollee analyses, enrollees in Model-participating plans were identified and a propensity score matching approach was used to select appropriate comparators based on their demographic and baseline health characteristics. This process consists of the following three steps:

(1) Identify Treatment Group and Eligible Treatment Beneficiary-months for Matching

The treatment cohort consists of all beneficiaries enrolled in Model-participating plans in 2017, 2018, 2019, or 2020 who had at least one month of exposure to the Model (i.e., were enrolled in a Model-participating plan after the Model's launch), and 12 months of continuous Medicare Parts A, B, and D enrollment prior to their exposure to the Model. Beneficiaries were excluded if they received hospice care prior to or in the first month of their exposure to the Model, because beneficiaries in hospice have short life expectancies and are not expected to benefit from Enhanced MTM. These enrollment restrictions ensure data availability for matching and estimation of Model impacts.[1] After exclusions were applied, about 60.4 percent of beneficiaries enrolled in participating plans were included in the treatment cohort.[2]

Enhanced MTM program start dates ("index dates") were set to either January 1, 2017 (which is when Model implementation began) for beneficiaries who were enrolled in Enhanced

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[1] Previous sensitivity analyses, which relaxed the enrollment criteria to only require 6 months of continuous Medicare Parts A, B, and D enrollment prior to exposure to the Model, found that the results from difference-in-differences (DiD) estimation were similar to the results that utilized 12 months of enrollment.

[2] Of those who did not satisfy enrollment restrictions, about 12.6 percent were new Medicare enrollees, 15.2 percent had non-continuous Parts A, B, and D enrollment, and another 10.6 percent were enrolled in Medicare Advantage during the 12-month period prior to their exposure to the Model.

MTM plans on or prior to January 2017, or the beneficiary's first date of enrollment in an Enhanced MTM plan for enrollees who joined Enhanced MTM plans after January 2017. Index dates determine the cutoff between the "baseline" (pre-exposure to Enhanced MTM) and "treatment" (post-exposure to Enhanced MTM) periods.

Beneficiary-months that were eligible for inclusion in analyses were identified for the beneficiaries who satisfied the enrollment restrictions outlined above. All baseline months were included in analyses, and post-exposure months were included in analyses conditional on availability of complete fee-for-service claims data (e.g., beneficiaries have not died or switched to Medicare Part C).[3] Post-exposure beneficiary-months were censored from analyses after beneficiaries switched to an Enhanced MTM-participating plan of a different sponsor than their original Part D plan, because in that case it is not possible to attribute any estimated impacts to a specific sponsor. For analyses of Model impacts on subgroups, presented in Sections 4 and 5 of the Fourth Evaluation Report, this censoring rule was relaxed as a sensitivity test. Specifically, post-switch observations of beneficiaries who switched to an Enhanced MTM-participating plan of a different sponsor were included in analyses. The findings from these sensitivity analyses are qualitatively similar to those presented in Sections 4 and 5, and discussed in more detail in those sections.

(2) Identify Potential Comparators and Assign Pseudo Index Dates

To select appropriate comparison beneficiaries for the treatment cohort, potential comparators who were not exposed to the Model were identified using similar enrollment restrictions to those placed on the treatment cohort. Potential comparators resided in PDP Regions that do not offer the Model, and were enrolled in plan types that are eligible for participation in the Model (i.e., Defined Standard, Basic Alternative, or Actuarially Equivalent Standard PDPs). Thus, potential comparators were pooled from multiple plans not participating in the Model. Geographic restrictions were applied to the potential comparison group to remove beneficiaries who reside in regions far from the Model's test area (i.e., New England, New York, New Jersey, Hawaii, and Alaska) and those who reside in Maryland (due to a statewide waiver currently in place for hospital payments).

Potential comparators must not be enrolled in plans participating in the Model after the Model launched on January 1, 2017. To determine baseline and treatment periods for analyses, potential comparators were assigned pseudo index dates. The distribution of pseudo index dates mirrored the distribution of index dates in the pre-matching treatment cohort. Similar to the

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[3] A supplemental analysis found that death or switching to non-Medicare Parts A, B, and D enrollment is not associated with enrollment in Enhanced MTM plans. The percentage of beneficiaries who were censored from the treatment population is similar to that of the comparison group. Additionally, the length of enrollment during the post-exposure period is very similar between the treatment and comparison groups.

inclusion criteria for the pre-matching treatment cohort, potential comparator beneficiaries were also required to have continuous Parts A, B, and D enrollment for 12 months in the baseline period and for at least one month following their pseudo index date. Beneficiaries who switched into Medicare Advantage plans or other types of enrollment or received hospice care in the baseline period or immediately following their index date were excluded from analyses.

To identify eligible beneficiary-months among potential comparators, restrictions similar to those placed for eligible beneficiary-months in the treatment cohort were imposed. All baseline months are included in analyses, and beneficiary-months following the pseudo index date are included in analyses conditional on availability of complete fee-for-service claims data (e.g., beneficiaries have not died or switched to Medicare Part C).

(3) Conduct Matching to Select Comparison Cohort

After identifying eligible beneficiary-months for the treatment cohort and the cohort of potential comparators, propensity score estimation using baseline information was conducted. The propensity score model included both individual characteristics in the 12-month period before Model exposure (e.g., variables related to demographic and clinical characteristics, past medical expenditures, past healthcare and drug utilization) as well as regional variables (e.g., urban/rural status based on zip code information, medical expenditures and healthcare utilization in Hospital Referral Region of residence).

The propensity score was used to match eligible beneficiary-months in the treatment cohort to eligible beneficiary-months in the potential comparison cohort. Matching was conducted separately for each PBP participating in the Model, to ensure that potential comparators were enrolled in plans of the same type (i.e., defined standard, basic alternative, or actuarially equivalent standard PDP), and did not reside geographically far from the PDP region of the relevant Enhanced MTM plan. The matching process used propensity score caliper matching with replacement, combined with exact matching on select variables (e.g., age, race). Each treatment beneficiary-month was matched to up to four comparison beneficiary-months, and weights were applied to account for many-to-many matching.

Matching was performed separately for beneficiaries first enrolled in Enhanced MTM plans in 2017 or 2018, in 2019, and in 2020. For beneficiaries first enrolled in Enhanced MTM plans in 2017 or 2018, propensity scores were estimated separately for each sponsor. The matched samples of beneficiaries first enrolled in Enhanced MTM plans in 2017, 2018, or 2019 and used in prior evaluation report analyses were preserved to the extent possible, conditional on enrollment restrictions (e.g., potential comparators may not be enrolled in Enhanced MTM PBPs at any point in 2017 or later) that were updated to incorporate information from Model Year 4 (2020). Impact estimates vary across evaluation reports due to data updates and some small differences across the analytic sample (because some beneficiaries used in analyses of prior

evaluation reports may be removed from analyses of subsequent evaluation reports if they no longer satisfy enrollment restrictions).

For beneficiaries who first enrolled in Enhanced MTM plans in 2019 or 2020, propensity scores were estimated separately by sponsor for beneficiaries enrolled in SilverScript/CVS, UnitedHealth, and Humana plans. For beneficiaries first enrolled in 2019 or 2020 in Blue Cross Blue Shield Northern Plains Alliance (BCBS NPA), WellCare, and Blue Cross Blue Shield Florida (BCBS FL) plans, a single propensity score model was estimated for the composite cohort of beneficiaries enrolled in plans operated by either of these sponsors. The estimation of a single propensity score model was necessary due to the small sample size considerations for the incoming cohort.

For the Model as a whole and for beneficiaries first enrolled in 2017 or 2018 the match rate was high; 98.6 percent of Enhanced MTM enrollees were matched to comparison beneficiaries. For beneficiaries first enrolled in 2019 the match rate was similarly high; 98.0 percent of Enhanced MTM enrollees were matched to comparison beneficiaries. For beneficiaries first enrolled in 2020, 97.9 percent of Enhanced MTM enrollees were matched to comparison beneficiaries.

Modelwide characteristics are available in Section 3.3 of the report body, and Table B.2.1 through Table B.2.12 present characteristics for each sponsor (e.g., see Table B.2.1 for baseline averages of the SilverScript/CVS sample). These tables show post-matching baseline averages for the treatment and comparison cohort for select beneficiary characteristics. As shown in these tables, there is balance in baseline characteristics between the treatment and the comparison cohort both for the Model as a whole and for each sponsor-specific sample.

Difference-in-differences (DiD) estimation relies on the assumption that the treatment and comparison groups share common trends in the baseline. This assumption was assessed by a visual inspection of trends in quarterly Medicare expenditures for the 12-month baseline period. Modelwide baseline expenditure trends for the treatment cohort and comparators are presented in Section 3.4 of the report body, and baseline expenditure trends for sponsors are shown in Figure B.2.1. A visual inspection of these graphs shows common trends in Medicare Parts A and B expenditures Modelwide and for all sponsors in the baseline, suggesting that the assumption of parallel trends required for valid DiD estimation is satisfied.

Baseline Characteristics by Sponsor

Table B.2.1 through Table B.2.12 present baseline characteristics of treatment and comparison cohorts for each sponsor. There are two tables for each sponsor: one table presents baseline demographic characteristics and the other presents baseline health services utilization, expenditures, and clinical profile characteristics.

Table B.2.1: SilverScript/CVS: Baseline Demographic Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	*STD*	**Mean**	*STD*
Age				
% Below 65 Years Old	29.0	*45.4*	28.7	*45.2*
% 65-69 Years Old	21.6	*41.2*	21.7	*41.2*
% 70-74 Years Old	18.8	*39.1*	19.0	*39.2*
% 75-79 Years Old	13.0	*33.6*	13.0	*33.6*
% 80+ Years Old	17.6	*38.1*	17.6	*38.1*
% Female	57.8	*49.4*	57.8	*49.4*
Race				
% White	79.4	*40.4*	79.6	*40.3*
% Black	12.1	*32.6*	12.0	*32.5*
% Other	8.5	*27.8*	8.4	*27.8*
% Urban	80.7	*39.5*	78.5	*41.1*
% Dual Eligible	46.6	*49.9*	46.2	*49.9*
% with LIS Status	51.4	*50.0*	50.9	*50.0*
% Disabled (Original Enrollment Reason)	38.6	*48.7*	38.3	*48.6*
% with ESRD (Original Enrollment Reason)	0.4	*6.5*	0.4	*6.4*

Notes: Number of treatment beneficiaries: 636,560. Number of comparison beneficiaries: 1,659,592. STD: standard deviation; LIS: low-income subsidy; ESRD: end-stage renal disease. The "% Disabled" and "% with ESRD" are based on beneficiaries' original reason for Medicare eligibility.
Sources: CME and EDB.

Table B.2.2: SilverScript/CVS: Baseline Health Services Utilization, Expenditures, and Clinical Profile Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	STD	Mean	STD
Inpatient (IP) Admissions				
% with 0 IP Admissions	83.1	37.4	83.1	37.5
% with 1 IP Admission	11.5	31.8	11.5	31.9
% with 2+ IP Admissions	5.4	22.6	5.4	22.6
% of Admissions with an Unplanned Readmission	15.0	35.8	14.5	35.2
Skilled Nursing Facility (SNF) Admissions				
% with 0 SNF Admissions	96.1	19.2	96.3	18.8
% with 1 SNF Admission	2.7	16.3	2.6	15.9
% with 2+ SNF Admissions	1.1	10.6	1.1	10.3
Emergency Department (ED) Visits				
% with 0 ED Visits	71.3	45.2	70.5	45.6
% with 1 ED Visit	17.0	37.5	17.2	37.8
% with 2+ ED Visits	11.7	32.1	12.3	32.8
Evaluation and Management (E&M) Visits				
% with 0 E&M Visits	7.9	27.0	7.2	25.9
% with 1-5 E&M Visits	34.6	47.6	35.1	47.7
% with 6-10 E&M Visits	27.5	44.6	27.7	44.8
% with 11-15 E&M Visits	15.2	35.9	15.2	35.9
% with 16+ E&M Visits	14.8	35.5	14.8	35.5
Part D Utilization				
Average Number of Concurrent Medications	3.78	3.02	3.84	2.96
Expenditures				
Average Total Annual Part D Expenditures per Beneficiary	$4,534	$13,195	$4,503	$12,590
Average Total Annual Parts A and B Expenditures per Beneficiary	$11,165	$23,274	$11,361	$25,409
Average Annual IP Expenditures per Beneficiary	$3,099	$11,548	$3,071	$12,064
Clinical Profile				
Average HCC Risk Score	1.18	1.16	1.18	1.16

Notes: Number of treatment beneficiaries: 636,560. Number of comparison beneficiaries: 1,659,592. STD: standard deviation; HCC: Hierarchical Condition Categories.

Sources: PDE, CWF, MBSF.

Table B.2.3: Humana: Baseline Demographic Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	*STD*	Mean	*STD*
Age				
% Below 65 Years Old	33.9	*47.3*	33.6	*47.2*
% 65-69 Years Old	16.6	*37.2*	16.7	*37.3*
% 70-74 Years Old	21.6	*41.1*	21.6	*41.2*
% 75-79 Years Old	11.8	*32.3*	11.9	*32.3*
% 80+ Years Old	16.1	*36.8*	16.2	*36.8*
% Female	56.9	*49.5*	56.9	*49.5*
Race				
% White	75.9	*42.7*	76.1	*42.6*
% Black	13.1	*33.7*	13.0	*33.6*
% Other	11.0	*31.3*	10.9	*31.2*
% Urban	81.9	*38.5*	79.8	*40.1*
% Dual Eligible	55.8	*49.7*	55.4	*49.7*
% with LIS Status	61.2	*48.7*	60.8	*48.8*
% Disabled (Original Enrollment Reason)	42.0	*49.4*	41.8	*49.3*
% with ESRD (Original Enrollment Reason)	0.6	*7.7*	0.6	*7.7*

Notes: Number of treatment beneficiaries: 365,492. Number of comparison beneficiaries: 859,525. STD: standard deviation; LIS: low-income subsidy; ESRD: end-stage renal disease. The "% Disabled" and "% with ESRD" are based on beneficiaries' original reason for Medicare eligibility.

Sources: CME and EDB.

Table B.2.4: Humana: Baseline Health Services Utilization, Expenditures, and Clinical Profile Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	STD	Mean	STD
Inpatient (IP) Admissions				
% with 0 IP Admissions	82.1	38.4	82.0	38.4
% with 1 IP Admission	11.8	32.3	11.9	32.3
% with 2+ IP Admissions	6.1	24.0	6.2	24.0
% of Admissions with an Unplanned Readmission	17.1	37.6	15.7	36.4
Skilled Nursing Facility (SNF) Admissions				
% with 0 SNF Admissions	96.1	19.3	96.4	18.6
% with 1 SNF Admission	2.7	16.3	2.5	15.7
% with 2+ SNF Admissions	1.1	10.6	1.1	10.4
Emergency Department (ED) Visits				
% with 0 ED Visits	69.7	45.9	68.6	46.4
% with 1 ED Visit	17.2	37.7	17.6	38.1
% with 2+ ED Visits	13.1	33.7	13.8	34.5
Evaluation and Management (E&M) Visits				
% with 0 E&M Visits	10.9	31.1	9.2	28.9
% with 1-5 E&M Visits	35.2	47.8	35.3	47.8
% with 6-10 E&M Visits	25.4	43.5	25.7	43.7
% with 11-15 E&M Visits	14.0	34.7	14.7	35.4
% with 16+ E&M Visits	14.5	35.2	15.2	35.9
Part D Utilization				
Average Number of Concurrent Medications	3.64	3.12	3.74	3.11
Expenditures				
Average Total Annual Part D Expenditures per Beneficiary	$4,151	$13,095	$4,281	$13,443
Average Total Annual Parts A and B Expenditures per Beneficiary	$11,649	$26,041	$12,038	$25,348
Average Annual IP Expenditures per Beneficiary	$3,410	$12,267	$3,375	$11,743
Clinical Profile				
Average HCC Risk Score	1.22	1.24	1.24	1.26

Notes: Number of treatment beneficiaries: 365,492. Number of comparison beneficiaries: 859,525. STD: standard deviation; HCC: Hierarchical Condition Categories.
Sources: PDE, CWF, MBSF.

Table B.2.5: BCBS NPA: Baseline Demographic Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	*STD*	Mean	*STD*
Age				
% Below 65 Years Old	3.3	*17.7*	3.3	*17.9*
% 65-69 Years Old	19.7	*39.8*	19.7	*39.8*
% 70-74 Years Old	23.9	*42.7*	23.9	*42.7*
% 75-79 Years Old	21.3	*41.0*	21.3	*40.9*
% 80+ Years Old	31.8	*46.6*	31.8	*46.6*
% Female	59.9	*49.0*	60.0	*49.0*
Race				
% White	97.5	*15.7*	97.4	*15.8*
% Black	0.3	*5.5*	0.3	*5.5*
% Other	2.2	*14.8*	2.3	*14.8*
% Urban	65.4	*47.6*	66.3	*47.3*
% Dual Eligible	3.0	*17.1*	3.0	*17.1*
% with LIS Status	4.1	*19.8*	4.1	*19.8*
% Disabled (Original Enrollment Reason)	7.5	*26.3*	7.5	*26.3*
% with ESRD (Original Enrollment Reason)	0.1	*3.5*	0.1	*3.5*

Notes: Number of treatment beneficiaries: 175,897. Number of comparison beneficiaries: 294,875. STD: standard deviation; LIS: low-income subsidy; ESRD: end-stage renal disease. The "% Disabled" and "% with ESRD" are based on beneficiaries' original reason for Medicare eligibility.

Sources: CME and EDB.

Table B.2.6: BCBS NPA: Baseline Health Services Utilization, Expenditures, and Clinical Profile Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	*STD*	Mean	*STD*
Inpatient (IP) Admissions				
% with 0 IP Admissions	86.1	*34.5*	85.9	*34.8*
% with 1 IP Admission	10.7	*30.9*	10.6	*30.7*
% with 2+ IP Admissions	3.1	*17.5*	3.5	*18.3*
% of Admissions with an Unplanned Readmission	9.5	*29.3*	10.5	*30.7*
Skilled Nursing Facility (SNF) Admissions				
% with 0 SNF Admissions	96.2	*19.2*	95.8	*19.9*
% with 1 SNF Admission	2.9	*16.8*	3.3	*17.8*
% with 2+ SNF Admissions	0.9	*9.5*	0.9	*9.3*
Emergency Department (ED) Visits				
% with 0 ED Visits	78.3	*41.2*	76.8	*42.2*
% with 1 ED Visit	15.3	*36.0*	16.0	*36.6*
% with 2+ ED Visits	6.4	*24.6*	7.2	*25.9*
Evaluation and Management (E&M) Visits				
% with 0 E&M Visits	4.8	*21.4*	4.8	*21.5*
% with 1-5 E&M Visits	44.3	*49.7*	40.2	*49.0*
% with 6-10 E&M Visits	29.3	*45.5*	30.3	*45.9*
% with 11-15 E&M Visits	12.5	*33.1*	14.1	*34.9*
% with 16+ E&M Visits	9.1	*28.7*	10.5	*30.7*
Part D Utilization				
Average Number of Concurrent Medications	3.38	*2.45*	3.56	*2.54*
Expenditures				
Average Total Annual Part D Expenditures per Beneficiary	$2,336	*$8,793*	$2,539	*$9,511*
Average Total Annual Parts A and B Expenditures per Beneficiary	$8,715	*$17,661*	$9,530	*$18,668*
Average Annual IP Expenditures per Beneficiary	$2,227	*$8,216*	$2,342	*$8,461*
Clinical Profile				
Average HCC Risk Score	0.99	*0.84*	1.03	*0.88*

Notes: Number of treatment beneficiaries: 175,897. Number of comparison beneficiaries: 294,875. STD: standard deviation; HCC: Hierarchical Condition Categories.

Sources: PDE, CWF, MBSF.

Table B.2.7: UnitedHealth: Baseline Demographic Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	*STD*	Mean	*STD*
Age				
% Below 65 Years Old	17.1	*37.6*	19.5	*39.6*
% 65-69 Years Old	33.6	*47.2*	32.3	*46.8*
% 70-74 Years Old	21.5	*41.1*	20.9	*40.6*
% 75-79 Years Old	12.4	*32.9*	12.1	*32.6*
% 80+ Years Old	15.4	*36.1*	15.2	*35.9*
% Female	58.4	*49.3*	58.2	*49.3*
Race				
% White	84.4	*36.3*	83.2	*37.4*
% Black	8.1	*27.2*	8.9	*28.5*
% Other	7.6	*26.4*	7.9	*26.9*
% Urban	86.3	*34.3*	81.7	*38.7*
% Dual Eligible	26.5	*44.2*	30.2	*45.9*
% with LIS Status	30.8	*46.2*	34.8	*47.6*
% Disabled (Original Enrollment Reason)	24.3	*42.9*	26.9	*44.4*
% with ESRD (Original Enrollment Reason)	0.3	*5.4*	0.3	*5.7*

Notes: Number of treatment beneficiaries: 203,738. Number of comparison beneficiaries: 556,100. STD: standard deviation; LIS: low-income subsidy; ESRD: end-stage renal disease. The "% Disabled" and "% with ESRD" are based on beneficiaries' original reason for Medicare eligibility.
Sources: CME and EDB.

Table B.2.8: UnitedHealth: Baseline Health Services Utilization, Expenditures, and Clinical Profile Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	STD	Mean	STD
Inpatient (IP) Admissions				
% with 0 IP Admissions	83.9	36.7	83.6	37.0
% with 1 IP Admission	11.1	31.4	11.4	31.8
% with 2+ IP Admissions	5.0	21.8	5.0	21.8
% of Admissions with an Unplanned Readmission	14.6	35.3	14.2	35.0
Skilled Nursing Facility (SNF) Admissions				
% with 0 SNF Admissions	96.7	17.9	97.0	17.1
% with 1 SNF Admission	2.4	15.4	2.2	14.7
% with 2+ SNF Admissions	0.9	9.3	0.8	8.9
Emergency Department (ED) Visits				
% with 0 ED Visits	74.3	43.7	72.4	44.7
% with 1 ED Visit	16.0	36.7	16.5	37.1
% with 2+ ED Visits	9.7	29.6	11.1	31.4
Evaluation and Management (E&M) Visits				
% with 0 E&M Visits	6.6	24.9	6.1	23.9
% with 1-5 E&M Visits	32.1	46.7	33.3	47.1
% with 6-10 E&M Visits	27.5	44.6	27.0	44.4
% with 11-15 E&M Visits	16.2	36.8	15.6	36.3
% with 16+ E&M Visits	17.6	38.1	17.9	38.3
Part D Utilization				
Average Number of Concurrent Medications	3.53	2.93	3.74	2.90
Expenditures				
Average Total Annual Part D Expenditures per Beneficiary	$3,945	$13,459	$4,352	$18,203
Average Total Annual Parts A and B Expenditures per Beneficiary	$11,303	$23,032	$11,840	$26,117
Average Annual IP Expenditures per Beneficiary	$2,977	$11,164	$2,997	$10,952
Clinical Profile				
Average HCC Risk Score	1.12	1.12	1.15	1.16

Notes: Number of treatment beneficiaries: 203,738. Number of comparison beneficiaries: 556,100. STD: standard deviation; HCC: Hierarchical Condition Categories.
Sources: PDE, CWF, MBSF.

Table B.2.9: WellCare: Baseline Demographic Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	STD	Mean	STD
Age				
% Below 65 Years Old	28.8	45.3	28.7	45.2
% 65-69 Years Old	20.9	40.7	21.0	40.7
% 70-74 Years Old	18.3	38.7	18.3	38.7
% 75-79 Years Old	13.1	33.8	13.1	33.8
% 80+ Years Old	18.8	39.1	18.8	39.1
% Female	58.9	49.2	58.9	49.2
Race				
% White	74.5	43.6	74.5	43.6
% Black	17.3	37.8	17.3	37.8
% Other	8.2	27.4	8.2	27.4
% Urban	79.0	40.7	77.2	41.9
% Dual Eligible	47.6	49.9	47.5	49.9
% with LIS Status	55.6	49.7	55.5	49.7
% Disabled (Original Enrollment Reason)	38.5	48.7	38.4	48.6
% with ESRD (Original Enrollment Reason)	0.6	7.6	0.6	7.6

Notes: Number of treatment beneficiaries: 130,796. Number of comparison beneficiaries: 526,729. STD: standard deviation; LIS: low-income subsidy; ESRD: end-stage renal disease. The "% Disabled" and "% with ESRD" are based on beneficiaries' original reason for Medicare eligibility.
Sources: CME and EDB.

Table B.2.10: WellCare: Baseline Health Services Utilization, Expenditures, and Clinical Profile Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	*STD*	Mean	*STD*
Inpatient (IP) Admissions				
% with 0 IP Admissions	82.5	*38.0*	82.7	*37.8*
% with 1 IP Admission	11.8	*32.3*	11.8	*32.2*
% with 2+ IP Admissions	5.7	*23.2*	5.5	*22.9*
% of Admissions with an Unplanned Readmission	15.5	*36.2*	14.9	*35.6*
Skilled Nursing Facility (SNF) Admissions				
% with 0 SNF Admissions	96.1	*19.3*	96.3	*18.9*
% with 1 SNF Admission	2.8	*16.5*	2.7	*16.2*
% with 2+ SNF Admissions	1.1	*10.3*	1.0	*10.0*
Emergency Department (ED) Visits				
% with 0 ED Visits	69.2	*46.2*	68.8	*46.3*
% with 1 ED Visit	17.7	*38.2*	17.8	*38.2*
% with 2+ ED Visits	13.1	*33.7*	13.4	*34.0*
Evaluation and Management (E&M) Visits				
% with 0 E&M Visits	7.4	*26.2*	6.9	*25.3*
% with 1-5 E&M Visits	35.4	*47.8*	35.3	*47.8*
% with 6-10 E&M Visits	27.6	*44.7*	28.2	*45.0*
% with 11-15 E&M Visits	15.3	*36.0*	15.4	*36.1*
% with 16+ E&M Visits	14.2	*35.0*	14.3	*35.0*
Part D Utilization				
Average Number of Concurrent Medications	3.96	*2.93*	3.99	*2.97*
Expenditures				
Average Total Annual Part D Expenditures per Beneficiary	$3,928	*$12,344*	$4,102	*$13,431*
Average Total Annual Parts A and B Expenditures per Beneficiary	$11,553	*$24,303*	$11,423	*$23,365*
Average Annual IP Expenditures per Beneficiary	$3,231	*$11,105*	$3,169	*$11,220*
Clinical Profile				
Average HCC Risk Score	1.21	*1.19*	1.20	*1.18*

Notes: Number of treatment beneficiaries: 130,796. Number of comparison beneficiaries: 526,729. STD: standard deviation; HCC: Hierarchical Condition Categories.

Sources: PDE, CWF, MBSF.

Table B.2.11: BCBS FL: Baseline Demographic Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	*STD*	Mean	*STD*
Age				
% Below 65 Years Old	2.3	*15.1*	2.4	*15.2*
% 65-69 Years Old	25.6	*43.7*	25.8	*43.7*
% 70-74 Years Old	28.5	*45.2*	28.5	*45.1*
% 75-79 Years Old	20.2	*40.2*	20.2	*40.1*
% 80+ Years Old	23.3	*42.3*	23.2	*42.2*
% Female	58.1	*49.3*	58.0	*49.4*
Race				
% White	93.6	*24.5*	93.6	*24.5*
% Black	2.6	*15.8*	2.6	*15.8*
% Other	3.8	*19.2*	3.9	*19.2*
% Urban	94.7	*22.4*	93.7	*24.3*
% Dual Eligible	2.4	*15.3*	2.4	*15.3*
% with LIS Status	3.3	*17.9*	3.3	*17.9*
% Disabled (Original Enrollment Reason)	6.1	*23.8*	6.1	*23.9*
% with ESRD (Original Enrollment Reason)	0.1	*2.5*	0.1	*2.6*

Notes: Number of treatment beneficiaries: 59,323. Number of comparison beneficiaries: 107,922. STD: standard deviation; LIS: low-income subsidy; ESRD: end-stage renal disease. The "% Disabled" and "% with ESRD" are based on beneficiaries' original reason for Medicare eligibility.

Sources: CME and EDB.

Table B.2.12: BCBS FL: Baseline Health Services Utilization, Expenditures, and Clinical Profile Characteristics of Treatment and Comparison Cohorts

Characteristics (12 months before exposure to the Enhanced MTM Model; weighted)	Treatment		Comparison	
	Mean	*STD*	Mean	*STD*
Inpatient (IP) Admissions				
% with 0 IP Admissions	85.4	*35.3*	85.5	*35.3*
% with 1 IP Admission	10.9	*31.1*	11.0	*31.2*
% with 2+ IP Admissions	3.7	*18.9*	3.6	*18.6*
% of Admissions with an Unplanned Readmission	11.8	*32.3*	10.1	*30.2*
Skilled Nursing Facility (SNF) Admissions				
% with 0 SNF Admissions	97.0	*17.0*	97.3	*16.3*
% with 1 SNF Admission	2.4	*15.2*	2.1	*14.3*
% with 2+ SNF Admissions	0.6	*7.8*	0.6	*7.9*
Emergency Department (ED) Visits				
% with 0 ED Visits	79.2	*40.6*	79.2	*40.6*
% with 1 ED Visit	15.0	*35.7*	14.7	*35.5*
% with 2+ ED Visits	5.8	*23.4*	6.1	*23.9*
Evaluation and Management (E&M) Visits				
% with 0 E&M Visits	2.8	*16.6*	2.8	*16.5*
% with 1-5 E&M Visits	27.3	*44.6*	29.2	*45.5*
% with 6-10 E&M Visits	30.0	*45.8*	30.0	*45.8*
% with 11-15 E&M Visits	18.7	*39.0*	18.1	*38.5*
% with 16+ E&M Visits	21.2	*40.8*	19.9	*39.9*
Part D Utilization				
Average Number of Concurrent Medications	3.37	*2.35*	3.44	*2.36*
Expenditures				
Average Total Annual Part D Expenditures per Beneficiary	$3,139	*$10,278*	$3,174	*$10,446*
Average Total Annual Parts A and B Expenditures per Beneficiary	$10,270	*$19,006*	$10,464	*$18,619*
Average Annual IP Expenditures per Beneficiary	$2,418	*$8,998*	$2,266	*$8,276*
Clinical Profile				
Average HCC Risk Score	1.06	*0.92*	1.06	*0.91*

Notes: Number of treatment beneficiaries: 59,323. Number of comparison beneficiaries: 107,922. STD: standard deviation; HCC: Hierarchical Condition Categories.

Sources: PDE, CWF, MBSF.

Figure B.2.1 presents baseline expenditure trends by sponsor. As noted earlier, a visual inspection of these graphs shows common trends in Medicare Parts A and B expenditures for all sponsors at the baseline. This suggests that the assumption of parallel trends required for valid DiD estimation is not violated.

Figure B.2.1: Average Baseline Medicare Parts A and B Expenditures per Beneficiary for All Sponsors
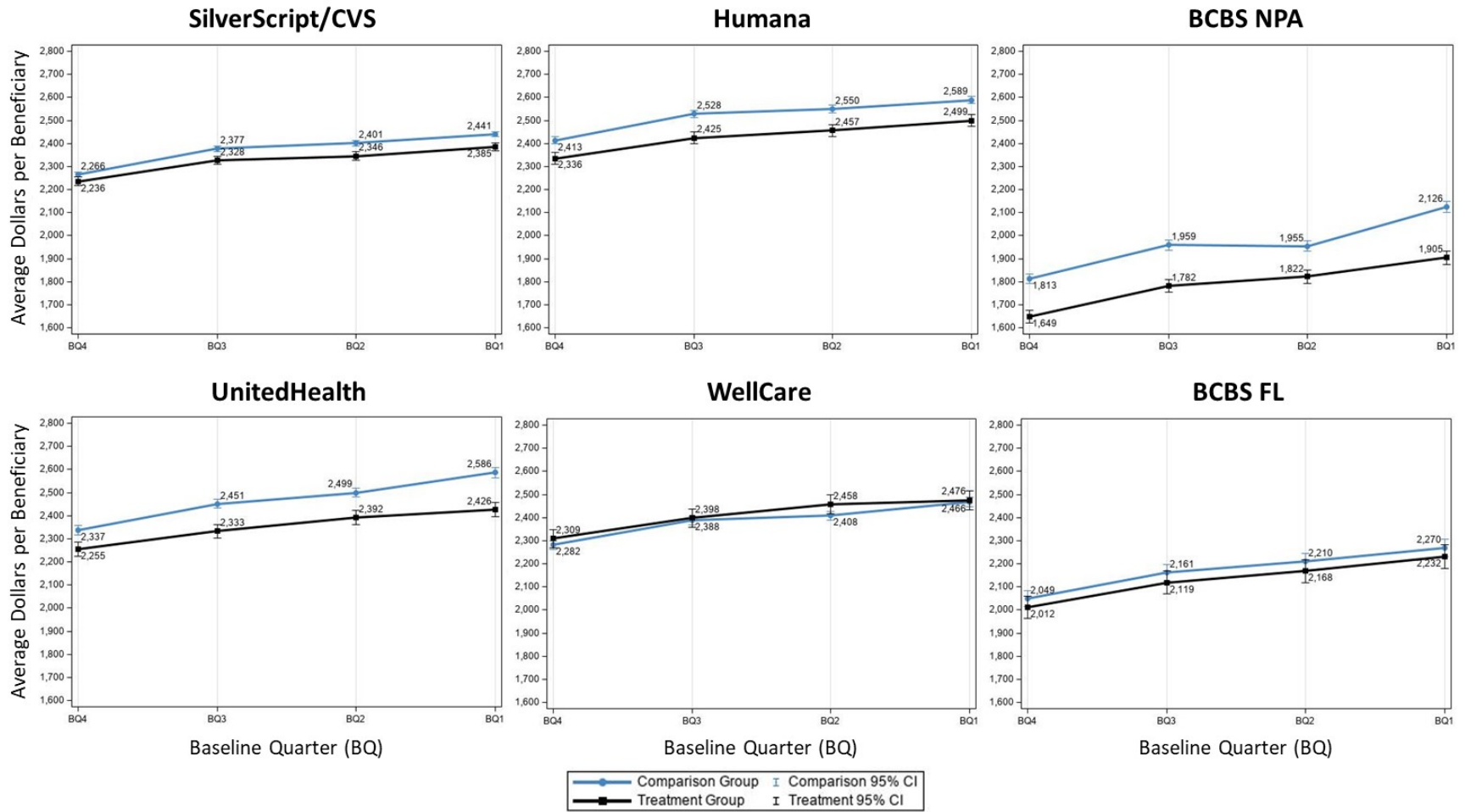
B.2.2 Subgroup Definitions

This Fourth Evaluation Report includes analyses of subgroups of beneficiaries who qualify for low-income subsidy (LIS), beneficiaries with chronic conditions, and beneficiaries with drug therapy problems (DTPs). The cohorts used for the estimation of Model impacts on these beneficiary subgroups are subsets of the larger cohorts used in all-enrollee analyses. These beneficiary subgroups were selected using information from the period prior to beneficiaries' exposure to the Model (the "baseline period"). Baseline information was used to construct indicators relevant for each subgroup, and for all beneficiaries (in the treatment or the comparison group) in the matched analytic sample used in all-enrollee analyses.

For example, an indicator for the LIS subgroup was constructed to identify beneficiaries who qualified for the LIS for at least one month during the baseline period. Matched sets of beneficiaries who, in the baseline, all belonged to a subgroup of interest were used in analyses of Model impacts on that subgroup. If a beneficiary in the comparison group was flagged for diabetes in the baseline, then that beneficiary was used in subgroup analyses of Model impacts as long as at least one of their matched beneficiaries in the treatment cohort was also flagged for diabetes in the baseline. Matching weights were adjusted for each subgroup to account for any differences in the set of matched beneficiaries identified for subgroup analyses and those identified for all-enrollee analyses. Table B.2.13 presents detailed information on how each subgroup was defined.

Table B.2.13: LIS, Chronic Conditions, and DTPs Subgroups Definitions

Subgroup	Definition
Low-income subsidy (LIS)	Beneficiaries in the matched analytic sample who qualified for the low-income subsidy for at least one month during the baseline period.
One or more / Two or more chronic conditions (1+ / 2+ chronic conditions)	Beneficiaries in the matched analytic sample who have diagnoses of one / two or more of the following chronic conditions during the baseline period: • Diabetes • Ischemic heart disease • Stroke • Atrial fibrillation • Heart failure • Respiratory disease (i.e., asthma, chronic obstructive pulmonary disease, chronic lung disorder) • Bone disease arthritis (i.e., osteoporosis, osteoarthritis, or rheumatoid arthritis) In consultation with clinicians, these chronic conditions were selected because they are prevalent and associated with high expenditures among the Medicare population.
Diabetes	Beneficiaries in the matched analytic sample who have diagnoses of diabetes during the baseline period.

Subgroup	Definition

Drug therapy problems (DTPs)	Beneficiaries in the matched analytic sample who have the following DTPs during the baseline period:
	• Non-compliance / Low adherence
	  o Beta blockers: PDC < 80%
	  o Oral antidiabetics: PDC < 80%
	  o Renin angiotensin system antagonists: PDC < 80%
	  o Statins: PDC < 80%
	  o Oral non-warfarin anticoagulants: PDC < 80%
	  o Calcium channel blockers: PDC < 80%
	• Overutilization
	  o Opioids: Average daily dosage of ≥ 90 morphine milligram equivalents (MME) over a period of ≥ 90 days
	  o Metoclopramide: Cumulative days supply > 84 days
	  o Antidepressant: Cumulative days supply > 335 days
	  o Proton pump inhibitor: Cumulative days supply > 90 days
	  o Anorexiant: Consecutive days supply > 90 days
	  o Quazepam: Consecutive days supply > 30 days
	  o Triazolam: Consecutive days supply > 10 days
	• All warfarin drug interactions
	In consultation with pharmacists, these drug therapy problems were selected because they are prevalent and associated with high expenditures among the Medicare population.

Notes: PDC: Proportion of Days Covered. A measure of medication adherence, PDC is a Pharmacist Quality Alliance (PQA) measure used in Medicare Part D star ratings (reported in 2019 or later). It is defined as beneficiaries who filled at least two prescriptions of a given drug class on different dates, are not in hospice care, and do not have end-stage renal disease (ESRD). For adherence to oral antidiabetics, beneficiaries must also not have a fill for insulin.

B.2.3 Outcome Measures

Table B.2.14: Expenditures Outcome Measure Definitions

Measure	Definition	Part A	Part B
Parts A and B Expenditures for All Services	Standardized Medicare payment amount in a month for total fee-for-service claims across all Common Working File (CWF) settings.	✓	✓
Expenditures of Hospital Inpatient (IP) Services	Standardized Medicare payment amount in a month for IP hospital services and physician services during hospitalization.	✓	✓
Expenditures of Institutional Post-Acute Care Services	Standardized Medicare payment amount in a month for post-acute care that includes services in the following settings: SNF and IP rehabilitation or long-term care hospital.	✓	
Expenditures of Emergency Department (ED) Services	Standardized Medicare payment amount in a month for emergency services that did not result in a hospital admission. Emergency services are defined by outpatient revenue center line code is 0450-0459 or 0981, or physician/carrier (PB) claim occurring with place of service=23, and include the following types: emergency evaluation & management services: procedures; laboratory, pathology, and other tests; and imaging services.		✓
Expenditures of Outpatient Non-Emergency Services	Standardized Medicare payment amount in a month for the following outpatient services where the place of service is not ED, and the service is not provided during an IP stay: outpatient evaluation & management services; major procedures; ambulatory/minor procedures; outpatient physical, occupational, or speech and language pathology therapy.		✓
Expenditures of Ancillary Services	Standardized Medicare payment amount in a month for the following outpatient services where the place of service is not emergency department, and the services are not provided during an IP stay: laboratory, pathology, and other tests; imaging services; and durable medical equipment (DME) and supplies.		✓
Hospital Inpatient Expenditures Related to Ambulatory Care-Sensitive Conditions (ACSCs)	Standardized Medicare payment amount in a month for the inpatient hospital services and physician services during hospitalization from IP claims with a primary diagnosis of one or more of the conditions of the ACSC chronic composite measure that focuses on diabetes, chronic obstructive pulmonary disease (COPD)/asthma, and heart failure. (Hospital inpatient expenditures related to ACSC COPD/asthma and ACSC heart failure were also assessed separately.)	✓	✓
ED Expenditures Related to ACSCs	Standardized Medicare payment amount in a month for emergency services from OP and PB claims containing at least one code indicating emergency services and with a primary diagnosis of one or more of the conditions of the ACSC chronic composite measure that focuses on diabetes, COPD/asthma, and heart failure. (ED expenditures related to COPD/asthma and ACSC heart failure were also assessed separately.)		✓

Notes: The ACSC chronic composite measure calculates risk-adjusted rates at which Medicare beneficiaries are hospitalized for an established set of chronic ACSCs (diabetes, COPD/asthma, and heart failure) that may be preventable given appropriate primary and preventative care. More information about this measure is available at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2016-ACSC-MIF.pdf. The ICD-10 codes for each ACSC diagnosis group are available at: https://www.qualityindicators.ahrq.gov/Archive/PQI_TechSpec_ICD10_v2020.aspx.

Table B.2.15: Utilization Outcome Measure Definitions

Measure	Definition	Part A	Part B
Inpatient (IP) Admissions	Number of acute IP stays in a month, based on counts of unique admission dates across IP claims with provider types: critical access hospitals, IP psychiatric facilities, and general hospitals.	✓	
Inpatient Length of Stay	Number of days with acute IP stays in a month.	✓	
Skilled Nursing Facility (SNF) Admissions	Number of stays in an SNF in a month, based on counts of unique admission dates across claims in the SNF file.	✓	
SNF Length of Stay	Number of days covered by SNF stays in a month.	✓	
Emergency Department (ED) Visits	Number of visits to the ED in a month, based on counts of unique dates across outpatient claims containing at least one revenue center code indicating ED visits in that month.		✓
Outpatient (OP) Non-Emergency Visits	Number of visits to an Outpatient facility that is not the ED in a month, based on counts of unique combinations of provider and date across claims in the OP file not containing any revenue center code indicating ED visits in that month.		✓
Evaluation and Management Visits	Number of visits in a month to a physician's office or an OP facility for evaluation and management services, based on counts of unique dates across OP and physician/carrier (PB) claims containing at least one Healthcare Common Procedure Coding System (HCPCS) Code indicating Evaluation & Management office visit.		✓
Readmissions	Follow-up unplanned hospital admissions that occur within 30 days of a hospital discharge (index hospitalization).	✓	
Inpatient Admissions Related to Ambulatory Care-Sensitive Conditions (ACSCs)	Number of acute inpatient stays in a month, based on counts of unique admission dates across IP claims with provider types: critical access hospitals, inpatient psychiatric facilities, or general hospitals, and containing a primary diagnosis of one or more of the conditions of the ACSC chronic composite measure that focuses on diabetes, COPD/asthma, and heart failure. (Inpatient admissions related to ACSC COPD/asthma and ACSC heart failure were also assessed separately.)	✓	
ED Visits Related to ACSCs	Number of visits to the ED in a month, based on counts of unique dates across OP claims containing at least one code indicating emergency services and with a primary diagnosis of one or more of the conditions of the ACSC chronic composite measure that focuses on diabetes, COPD/asthma, and heart failure. (ED visits related to ACSCs COPD/asthma and ACSC heart failure were also assessed separately.)		✓

Notes: The ACSC chronic composite measure calculates risk-adjusted rates at which Medicare beneficiaries are hospitalized for an established set of chronic ACSCs (diabetes, COPD/asthma, and heart failure) that may be preventable given appropriate primary and preventative care. More information about this measure is available at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2016-ACSC-MIF.pdf. The ICD-10 codes for each ACSC diagnosis group are available at: https://www.qualityindicators.ahrq.gov/Archive/PQI_TechSpec_ICD10_v2020.aspx.

Table B.2.16: Medication Use and Patient Safety Measure Definitions

Measure	Definition	Numerator	Denominator
Adherence to Oral Antidiabetics (Proportion of Days Covered)	The percentage of beneficiaries who met the Proportion of Days Covered (PDC) threshold of 80% for oral antidiabetics.	Beneficiaries who met the PDC threshold.	Beneficiaries who filled at least two prescriptions of oral antidiabetics on different dates, are not in hospice care, and do not have end-stage renal disease (ESRD). Beneficiaries must also not have a fill for insulin.
Statin Use in Persons with Diabetes (SUPD)	The percentage of beneficiaries who were dispensed diabetes and statin medications.	Beneficiaries from the denominator with at least one fill for a statin medication.	Beneficiaries with two or more fills on different dates for any diabetes medication who are not in hospice care and do not have ESRD.

Notes: Adherence measures use the Proportion of Days Covered (PDC) metric. The PDC metric is defined as the proportion of days in the measurement period "covered" by the prescription claims for the same medication or another in its therapeutic category. These measures are Pharmacist Quality Alliance (PQA) measures used in Medicare Part D star ratings (reported in 2019 or later).

B.2.4 Difference-in-Differences (DiD) Estimation

DiD Specification for Expenditures and Utilization Outcomes

Model impacts on expenditure and utilization outcomes were estimated using a difference-in-differences (DiD) model on the matched samples of beneficiary-month observations. For all-enrollee analyses, the DiD model was estimated for the Model as a whole (by pooling together all sponsor-specific analytic cohorts and adjusting matching weights accordingly), as well as separately for each sponsor. For subgroup analyses, only Modelwide impacts were estimated.

The DiD specification produced cumulative estimates of the overall impact of the Model on per-beneficiary-per-month expenditures over the four years of Model implementation. The same specification was used to estimate impacts separately by Model Year. This specification, presented below, estimated the post-exposure difference from baseline in the outcome of interest (e.g., total Medicare Parts A and B expenditures) for treatment beneficiaries relative to controls, separately by exposure (i.e., enrollment) year, and allowed this difference to vary by Model Year. The DiD specification included month fixed effects to control for Medicare-wide shocks and trends that affect the treatment and the comparison group similarly, but vary across exposure years. Standard errors were clustered at the beneficiary level. Table B.2.17 provides descriptions of variables and coefficients.

[Specification 1]

$$y_{it} = \alpha + \sum_{j=1}^{59} \beta_{2017j}[(month_t = j) \cdot (exposure\ year_i = 2017)]$$

$$+ \sum_{j=1}^{48} \beta_{2018j}[(month_t = j) \cdot (exposure\ year_i = 2018)]$$

$$+ \sum_{j=1}^{36} \beta_{2019j}[(month_t = j) \cdot (exposure\ year_i = 2019)]$$

$$+ \sum_{j=1}^{24} \beta_{2020j}[(month_t = j) \cdot (exposure\ year_i = 2020)]$$

$$+ \sum_{k=2017}^{2020} \gamma_k[(EMTM_i = 1) \cdot (exposure\ year_i = k)]$$

$$+ \sum_{k=2017}^{2020} \sum_{m \geq k}^{2020} \delta_{km}[(post_{it} = 1) \cdot (EMTM_i = 1) \cdot (exposure\ year_i = k) \cdot (year_t = m)]_i$$

$$+ \epsilon_{it}$$

Table B.2.17: Variable and Coefficient Descriptions for the DiD Specification for Expenditures and Utilization Outcomes

Variable/Coefficient	Description
y_{it}	Outcome of interest (e.g., total Medicare Parts A and B expenditures) for beneficiary i in month t
$(month_t = j)$	An indicator (dummy) variable for calendar month j
$(exposure\ year_i = 2017)$	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2017 (i.e., were first enrolled in Enhanced MTM plans in 2017, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2017)
$(exposure\ year_i = 2018)$	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2018 (i.e., were first enrolled in Enhanced MTM plans in 2018, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2018)
$(exposure\ year_i = 2019)$	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2019 (i.e., were first enrolled in Enhanced MTM plans in 2019, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2019)
$(exposure\ year_i = 2020)$	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2020 (i.e., were first enrolled in Enhanced MTM plans in 2020, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2020)
$(EMTM_i = 1)$	An indicator variable for beneficiaries in the treatment cohort
$(post_{it} = 1)$	An indicator variable for observations corresponding to the post-exposure period
$(year_t = 2017)$	An indicator variable for observations corresponding to Model Year 1 (2017)
$(year_t = 2018)$	An indicator variable for observations corresponding to Model Year 2 (2018)
$(year_t = 2019)$	An indicator variable for observations corresponding to Model Year 3 (2019)
$(year_t = 2020)$	An indicator variable for observations corresponding to Model Year 4 (2020)
ϵ_{it}	An error term
α coefficient	Estimates an intercept
β coefficients	Correspond to the calendar month fixed effects and are allowed to vary across exposure years
γ coefficients	Estimate a separate intercept for treatment cohort observations, by exposure (or pseudo-exposure) year
δ coefficients	Produce DiD estimates of cumulative Model impacts on the outcome of interest relative to the baseline period, for each exposure year k and Model Year m combination. The weighted average of these coefficients produces the cumulative DiD estimate for the treatment cohort.

To produce a cumulative DiD estimate, all δ estimates (for all Model Years and each exposure years) were combined into a weighted average using the relevant count of treatment cohort post-exposure observations of each Model Year–exposure cohort combination (corresponding to each δ estimate) as numerators for the weights. The denominator of the weights was the total count of post-exposure Enhanced MTM observations.

To produce a DiD estimate for each Model Year, the estimates for that Model Year and for each exposure year were combined into a weighted average, using the relevant observation count for each exposure cohort to calculate the weights. For example, for Model Year 2, the DiD estimate was a weighted average of the δ_{1718} and δ_{1818} estimates from the specification listed above. The numerator for the weight assigned to the δ_{1718} estimate was the count of post-exposure observations in 2018 corresponding to beneficiaries with exposure year 2017 who were treated. The numerator for the weight assigned to the δ_{1818} estimate was the count of post-exposure observations in 2018 corresponding to beneficiaries with exposure year 2018 who were treated. The denominator for these weights was the count of post-exposure observations in 2018 corresponding to beneficiaries who were treated.

DiD Specification for Readmissions, Medication Use, and Patient Safety Measures

Readmissions are defined as unplanned follow-up admissions to any acute care hospital (general acute or critical access hospital) within 30 days of initial discharge (the "index admission") from another acute care hospital. The Model's impact on the rate of readmissions (per 1,000 index admissions) was estimated with a linear probability model and a DiD specification. The unit of observation in readmissions models was an index hospital admission. Analyses of the Model's impact on readmissions used the sample of index admissions (and readmissions) from the cohort of treatment beneficiaries and their matched comparators.

The same DiD model specification that produced cumulative DiD estimates also produced estimates by Model Year. The specification for the DiD readmissions estimate, presented below, provided the post-exposure change (from baseline) in the probability that an index admission resulted in a 30-day unplanned readmission for treatment beneficiaries relative to controls, separately by exposure year, and allowed this change to differ by Model Year. Calendar-year-specific fixed effects were included to control for shocks and national trends that affected both treatment and comparison beneficiaries similarly. These calendar-year fixed effects were allowed to vary by year of exposure (or pseudo-exposure, for the comparison group). The DiD model also included covariates to control for baseline imbalances in the characteristics of beneficiaries who contributed index admissions to the sample. These covariates are indicator variables for age under 65, low-income subsidy (LIS) or dual-eligible status, and original Medicare entitlement category (disabled, end-stage renal disease [ESRD]).

Table B.2.18 provides descriptions of variables and coefficients. Standard errors were clustered at the beneficiary level.

Cumulative estimates of Model impacts on readmissions and estimates by Model Year were derived by producing weighted averages of the δ coefficients, where the weights were based on the relevant number of treatment cohort post-exposure observations, similar to the methodology used to produce the cumulative and by Model Year expenditures and utilization estimates, discussed above. The DiD specification used to estimate Model impacts on readmissions is listed below.

[Specification 2]

$$y_{it} = \alpha + \sum_{j=2017}^{2020} \beta_{2017j} [(year = j) \cdot (exposure\ year_i = 2017)]$$

$$+ \sum_{j=2017}^{2020} \beta_{2018j} [(year = j) \cdot (exposure\ year_i = 2018)]$$

$$+ \sum_{j=2018}^{2020} \beta_{2019j} [(year = j) \cdot (exposure\ year_i = 2019)]$$

$$+ \sum_{j=2019}^{2020} \beta_{2020j} [(year = j) \cdot (exposure\ year_i = 2020)]$$

$$+ \sum_{k=2017}^{2020} \gamma_k [(EMTM_i = 1) \cdot (exposure\ year_i = k)]$$

$$+ \sum_{k=2017}^{2020} \sum_{m \geq k}^{2020} \delta_{km} [(post_{it} = 1) \cdot (EMTM_i = 1) \cdot (exposure\ year_i = k) \cdot (year_t = m)]_{it}$$

$$+ X_{it} + \epsilon_{it}$$

Table B.2.18: Variable and Coefficient Descriptions for the DiD Specification for Readmissions

Variable/Coefficient	Description
y_{it}	An indicator variable equal to 1 if the index admission has a 30-day unplanned readmission, and equal to 0 otherwise
(*exposure year$_i$* = 2017)	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2017 (i.e., were first enrolled in Enhanced MTM plans in 2017, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2017)
(*exposure year$_i$* = 2018)	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2018 (i.e., were first enrolled in Enhanced MTM plans in 2018, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2018)
(*exposure year$_i$* = 2019)	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2019 (i.e., were first enrolled in Enhanced MTM plans in 2019, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2019)
(*exposure year$_i$* = 2020)	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2020 (i.e., were first enrolled in Enhanced MTM plans in 2020, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2020)
($EMTM_i$ = 1)	An indicator variable for beneficiaries in the treatment cohort
($post_{it}$ = 1)	An indicator variable for observations corresponding to the post-exposure period
($year_t$ = 2017)	An indicator variable for observations corresponding to Model Year 1 (2017)
($year_t$ = 2018)	An indicator variable for observations corresponding to Model Year 2 (2018)
($year_t$ = 2019)	An indicator variable for observations corresponding to Model Year 3 (2019)
($year_t$ = 2020)	An indicator variable for observations corresponding to Model Year 4 (2020)
X_{it}	Vector of covariates including indicator variables for age under 65, LIS or dual-eligible status, and original Medicare entitlement category (disabled, ESRD)
ϵ_{it}	An error term
α coefficient	Estimates an intercept
β coefficients	Estimate calendar-year fixed effects that are allowed to vary across exposure (or pseudo-exposure) years
γ coefficients	Estimate a separate intercept for treatment cohort observations, by exposure year
δ coefficients	Produce DiD estimates of cumulative Model impacts on the readmissions rate relative to the baseline period, for each Model Year *m* and exposure year *k* combination. Weighted averages of these coefficients produce the cumulative DiD estimate for the treatment cohort, and DiD estimates for each Model Year.

The specification that estimates Model impacts on medication use and patient safety measures is the same as the one that estimates Model impacts on the rate of readmissions, shown above. However, for these measures the unit of observation is a beneficiary-year.[4] Beneficiary-years were included in analyses of a given measure if they satisfied that measure's inclusion criteria, and if there was at least one matched treatment or comparison beneficiary-year that also satisfied that measure's inclusion criteria for that given year (see Table B.2.16).[5]

For all outcomes, the DiD estimate is produced using a linear probability model. The DiD specification estimates the percentage point change in the rate of a measure (e.g., adherence to

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[4] These analyses use beneficiary-years rather than beneficiary-months because medication use outcomes generally require a longer period for accurate measurement.

[5] Based on the matches assigned to the beneficiaries on their index (or pseudo-index) month. As a robustness check, an alternative sample that additionally required beneficiaries to contribute observations both in the baseline and in the post-exposure period was also used with the same DiD specification, and produced similar findings.

oral antidiabetics) over a given time period (cumulatively from Model start, or by Model Year). The dependent variable is an indicator variable equal to 1 if the inclusion criteria for the numerator of a measure are met, and equal to 0 otherwise (e.g., the dependent variable is equal to 1 if the beneficiary is adherent to oral antidiabetics in a given year, with adherence defined as having PDC of at least 80 percent). All DiD models include covariates that control for LIS or dual-eligible status, original Medicare entitlement category, age, and race. The DiD models were estimated separately for each sponsor and for the Model as a whole. Matching weights were applied, and standard errors were clustered at the beneficiary level. Table B.2.19 provides descriptions of variables and coefficients.

Table B.2.19: Variable and Coefficient Descriptions for the DiD Specification for Medication Use and Patient Safety Measures

Variable/Coefficient	Description
y_{it}	An indicator variable equal to 1 if the inclusion criteria for the numerator of a medication use or patient safety measure are met, and equal to 0 otherwise
($exposure\ year_i$ = 2017)	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2017 (i.e., were first enrolled in Enhanced MTM plans in 2017, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2017)
($exposure\ year_i$ = 2018)	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2018 (i.e., were first enrolled in Enhanced MTM plans in 2018, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2018)
($exposure\ year_i$ = 2019)	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2019 (i.e., were first enrolled in Enhanced MTM plans in 2019, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2019)
($exposure\ year_i$ = 2020)	An indicator variable for beneficiaries who first became exposed to Enhanced MTM in 2020 (i.e., were first enrolled in Enhanced MTM plans in 2020, or were in the comparison group of beneficiaries who first enrolled in Enhanced MTM plans in 2020)
($EMTM_i$ = 1)	An indicator variable for beneficiaries in the treatment cohort
($post_{it}$ = 1)	An indicator variable for observations corresponding to the post-exposure period
($year_t$ = 2017)	An indicator variable for observations corresponding to Model Year 1 (2017)
($year_t$ = 2018)	An indicator variable for observations corresponding to Model Year 2 (2018)
($year_t$ = 2019)	An indicator variable for observations corresponding to Model Year 3 (2019)
($year_t$ = 2020)	An indicator variable for observations corresponding to Model Year 4 (2020)
X_{it}	Vector of covariates including indicator variables for age and race categories, LIS or dual-eligible status, and original Medicare entitlement category (disabled, ESRD)
ϵ_{it}	An error term
α coefficient	Estimates an intercept
β coefficients	Estimate calendar-year fixed effects that are allowed to vary across exposure (or pseudo-exposure) years
γ coefficients	Estimate a separate intercept for treatment cohort observations, by exposure year
δ coefficients	Produce DiD estimates of cumulative Model impacts on the medication use or patient safety measure relative to the baseline period, for each Model Year m and exposure year k combination. Weighted averages of these coefficients produce the cumulative DiD estimate for the treatment cohort, and DiD estimates for each Model Year.

B.2.5 Net Expenditures Calculation

Model impacts on net Medicare expenditures take into account two components. The first is estimated changes in gross Medicare expenditures for Parts A and B on behalf of beneficiaries enrolled in Model-participating plans, generated using the methods described in the preceding sections. The second component is expenditures incurred by Medicare for (i) per-beneficiary per-month (PBPM) prospective payments to sponsors to cover Model implementation expenditures and (ii) performance-based payments. This Fourth Evaluation Report presents changes in net expenditures for the Model as a whole, calculated separately for each Model Year. Because the calculation of performance-based payments required enrollment projections for September 2021 through December 2021 and all of 2022, the estimates of changes in net expenditures presented in this report are preliminary and will be updated as enrollment data become available.

The algorithm for calculating Model impacts on net Medicare expenditures includes five steps:

(1) **Produce the Modelwide PBPM estimates of changes in Medicare Parts A and B expenditures for each Model Year and cumulatively across all four years of the Model.** These are the Modelwide gross Medicare Parts A and B expenditures estimates presented in Section 2.3.

(2) **Produce the Modelwide average PBPM prospective payment in each Model Year and cumulatively across all four years.** For each sponsor, the monthly authorized prospective payments are summed across the 12 months of each Model Year.[6] The Modelwide prospective payment is produced by summing across all sponsors for a given Model Year. The cumulative prospective payment is produced by summing across all four years of the Model. The yearly or cumulative prospective payment is then divided by the total number of beneficiary-months in the time period of interest to produce the average PBPM prospective payment. Prospective payments for November and December 2018 for WellCare were not allocated until January 2019. Consequently, prospective payment information for 2019 is used to impute prospective payments for November and December 2018 for WellCare.[7] Similarly, for all sponsors, prospective payments for October 2020 were imputed because prospective payments for October 2020 were not allocated until November 2020.[8]

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[6] Information on prospective payments was provided to Acumen by CMS.
[7] January 2019 prospective payments were assumed to be at the average PBPM rate of February-June 2019, and the excess remainder was attributed to November and December of 2018 rather than January 2019.
[8] November 2020 prospective payments were assumed to be at the average PBPM rate of January-September and December 2020, and the excess remainder was attributed to October 2020.

(3) **Produce the Modelwide PBPM performance payment in each Model Year.** Performance-based payments are allocated to participating plans conditional on plan savings in enrollees' Medicare Parts A and B expenditures relative to a benchmark.[9] Performance-based payments are fixed at $2 PBPM, and take the form of an increase in Medicare's direct subsidy component of Part D payment, resulting in a corresponding decrease in the plan premium paid by beneficiaries. Performance-based payments are awarded with a two-year delay. For example, performance results in Model Year 1 (2017) determine eligibility for performance-based payments that are awarded in Model Year 3 (2019). For plans that qualified for performance payments based on Model Year 1 (2017), Model Year 2 (2018), Model Year 3 (2019), and Model Year 4 (2020) performance, the total expected amount of performance payments awarded in 2019, 2020, 2021, and 2022 is calculated, using enrollment projections.[10] The total performance payments awarded in 2019 are then translated into a PBPM amount for Model Year 1 based on total 2017 plan enrollment. The total performance payments awarded in 2020, 2021, and 2022 are translated into a PBPM amount for Model Year 2 based on total 2018 plan enrollment, for Model Year 3 based on total 2019 plan enrollment, and for Model Year 4 based on total 2020 plan enrollment, respectively.

(4) **Sum the values produced in Step 1, Step 2, and Step 3.** Changes in net expenditures are calculated as the sum of the estimated change in total Medicare expenditures and expenditures incurred by Medicare for prospective and performance-based payments to sponsors. If estimates are negative, net Medicare expenditures have decreased and the estimates represent net savings. Positive estimates represent net losses.

(5) **Produce change in net expenditures for each Model Year.** The value in Step 4 is multiplied by the number of total beneficiary-months in the time period of interest to produce the change in net expenditures for each year and cumulatively across the four years of Model implementation.

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[9] A minimum savings rate of 2 percent relative to a benchmark is required to qualify for performance-based payments. The benchmark is determined based on expected Medicare expenditures (in the absence of the Model).

[10] Monthly enrollment is projected for plans that qualified for these payments for months where data were not yet available when this report was drafted (September 2021 through December 2021 and all of 2022). For all plans, enrollment is projected using a linear trend in plan enrollment based on prior months' trend.

B.3 Supplementary Findings on Model Impacts: All Enrollees

This section presents additional information and findings on the estimated impacts of Enhanced MTM presented in Section 3.4, including findings not reported in the main report.

- Appendix Section B.3.1 presents Model impacts on gross Medicare Parts A and B expenditures.

- Appendix Sections B.3.2 through B.3.3 present setting-specific Medicare expenditures and health service utilization.

- Appendix Section B.3.4 presents inpatient expenditures and admissions related to the ACSC Chronic Composite Measure.

B.3.1 Gross Medicare Parts A and B Expenditures

This subsection presents estimates of the Model impacts on gross Medicare Parts A and B expenditures (Section 3.4 of the main report) by individual sponsor, both cumulative and for each Model Year. There are a total of six tables in this subsection, one for each sponsor.

At the sponsor level, there were no significant cumulative impacts on gross Medicare Parts A and B expenditures. There was a statistically significant increase in Model Year 1 for BCBS FL, but this was not sustained in later Model Years. In Model Year 4, there were statistically significant changes in gross Medicare Parts A and B expenditures for SilverScript/CVS, Humana, and WellCare. For SilverScript/CVS, there was an increase in Medicare Parts A and B expenditures in Model Year 4, inconsistent with the Model's theory of change. For Humana and WellCare, there were decreases in Medicare Parts A and B expenditures. The fourth year of the Model (2020) coincided with the COVID-19 public health emergency (PHE). Thus, it is unclear whether the significant changes in Medicare Parts A and B expenditures for these three sponsors reflect true impacts of the Model or the disruption in healthcare provision caused by the COVID-19 PHE.

Table B.3.1: SilverScript/CVS: Parts A and B Expenditures, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$1.64	- $2.00	- $1.61	$1.90	**$9.62***
P-value	0.626	0.605	0.716	0.690	0.055
95% Confidence Interval	(-4.96 , 8.24)	(-9.58 , 5.59)	(-10.27 , 7.05)	(-7.44 , 11.24)	(-0.19 , 19.43)
Relative Difference	0.18%	-0.22%	-0.18%	0.21%	1.05%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$915.58	$917.63	$913.48	$915.19	$915.95
Intervention Period Enhanced MTM Mean	$1,055.13	$1,038.47	$1,060.18	$1,079.79	$1,042.59
Baseline Comparison MTM Mean	$936.76	$943.56	$932.25	$934.57	$936.11
Intervention Period Comparison MTM Mean	$1,074.67	$1,066.41	$1,080.56	$1,097.27	$1,053.13

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.2: Humana: Parts A and B Expenditures, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $6.90	- $3.93	$2.06	- $13.42	**- $17.17****
P-value	0.231	0.546	0.793	0.104	0.044
95% Confidence Interval	(-18.19 , 4.40)	(-16.67 , 8.81)	(-13.3 , 17.42)	(-29.58 , 2.74)	(-33.84 , -0.50)
Relative Difference	-0.71%	-0.41%	0.21%	-1.37%	-1.75%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$974.91	$969.73	$973.85	$978.14	$983.68
Intervention Period Enhanced MTM Mean	$1,058.78	$1,094.17	$1,043.97	$1,051.84	$1,009.74
Baseline Comparison MTM Mean	$1,008.50	$1,006.45	$1,003.75	$1,010.25	$1,016.81
Intervention Period Comparison MTM Mean	$1,099.26	$1,134.82	$1,071.81	$1,097.38	$1,060.04

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.3: BCBS NPA: Parts A and B Expenditures, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$8.01	$4.32	- $1.30	$8.84	$22.47
P-value	0.462	0.756	0.922	0.527	0.160
95% Confidence Interval	(-13.31 , 29.33)	(-22.95 , 31.58)	(-27.37 , 24.78)	(-18.57 , 36.24)	(-8.85 , 53.78)
Relative Difference	1.14%	0.61%	-0.18%	1.25%	3.18%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$704.52	$702.51	$704.87	$705.58	$705.46
Intervention Period Enhanced MTM Mean	$876.08	$837.38	$878.92	$916.56	$876.91
Baseline Comparison MTM Mean	$765.95	$765.63	$764.93	$766.77	$766.63
Intervention Period Comparison MTM Mean	$929.50	$896.18	$940.28	$968.91	$915.62

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.4: UnitedHealth: Parts A and B Expenditures, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $2.30	- $11.22	$0.52	$2.07	- $0.88
P-value	0.750	0.211	0.962	0.819	0.927
95% Confidence Interval	(-16.47 , 11.86)	(-28.81 , 6.36)	(-20.81 , 21.85)	(-15.68 , 19.81)	(-19.76 , 18.00)
Relative Difference	-0.25%	-1.24%	0.06%	0.22%	-0.09%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$917.44	$902.98	$904.56	$928.19	$930.25
Intervention Period Enhanced MTM Mean	$1,025.94	$1,007.38	$1,023.77	$1,061.65	$1,006.36
Baseline Comparison MTM Mean	$951.57	$941.66	$943.89	$957.44	$961.04
Intervention Period Comparison MTM Mean	$1,062.37	$1,057.28	$1,062.58	$1,088.83	$1,038.03

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.5: WellCare: Parts A and B Expenditures, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $3.65	$5.80	- $3.14	- $1.16	**- $18.38***
P-value	0.579	0.440	0.721	0.907	0.064
95% Confidence Interval	(-16.54 , 9.23)	(-8.92 , 20.51)	(-20.41 , 14.12)	(-20.68 , 18.36)	(-37.81 , 1.06)
Relative Difference	-0.39%	0.62%	-0.34%	-0.12%	-1.92%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$941.57	$932.94	$937.31	$940.83	$957.77
Intervention Period Enhanced MTM Mean	$1,094.51	$1,066.97	$1,100.33	$1,130.85	$1,086.70
Baseline Comparison MTM Mean	$928.99	$923.32	$920.17	$924.36	$950.43
Intervention Period Comparison MTM Mean	$1,085.59	$1,051.55	$1,086.33	$1,115.54	$1,097.74

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.6: BCBS FL: Parts A and B Expenditures, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $19.34	**- $43.30***	$5.71	- $6.79	- $31.75
P-value	0.179	0.009	0.766	0.714	0.137
95% Confidence Interval	(-47.53 , 8.85)	(-75.96 , -10.65)	(-31.85 , 43.27)	(-43.06 , 29.49)	(-73.57 , 10.07)
Relative Difference	-2.30%	-5.16%	0.68%	-0.81%	-3.77%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$839.99	$838.79	$839.61	$839.54	$842.37
Intervention Period Enhanced MTM Mean	$1,023.95	$973.16	$1,044.44	$1,080.59	$1,002.73
Baseline Comparison MTM Mean	$859.61	$862.09	$860.66	$859.85	$855.19
Intervention Period Comparison MTM Mean	$1,062.90	$1,039.77	$1,059.79	$1,107.69	$1,047.30

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

B.3.2 Setting-specific Medicare Expenditures

This subsection presents the Model impacts on Medicare expenditures by service delivery setting (supplementing Section 3.4 of the main report), for the Model as a whole and by individual sponsor, both cumulative and for each Model Year. There are a total of 35 tables in this subsection, presenting Model impacts on five service delivery settings (inpatient services, institutional post-acute care, emergency department [ED], outpatient services excluding ED, and ancillary services) for the Model as a whole and for each individual sponsor.

Cumulatively, there were moderate, statistically significant decreases in expenditures for hospital inpatient services and institutional post-acute care, partially offset by increases in expenditures for ED, outpatient non-emergency, and ancillary services. These findings leverage data through the fourth year of the Model, and were qualitatively similar to those reported in prior evaluation reports.[11] Sponsor-level estimates were consistent with the Modelwide findings.

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[11] See, for example, the Enhanced MTM Model Third Evaluation Report, "Evaluation of the Part D Enhanced Medication Therapy Management (MTM) Model: Third Evaluation Report" (August 2021), https://innovation.cms.gov/data-and-reports/2021/mtm-thrdevalrept.

Inpatient Services

Table B.3.7: Modelwide: Expenditures for Inpatient Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**- $5.02***	- $2.94	**- $5.84***	**- $6.89***	**- $4.85**
P-value	<0.001	0.107	0.003	<0.001	0.013
95% Confidence Interval	(-7.81 , -2.23)	(-6.5 , 0.63)	(-9.67 , -2)	(-10.7 , -3.08)	(-8.66 , -1.04)
Relative Difference	-1.83%	-1.07%	-2.14%	-2.51%	-1.76%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$274.04	$274.05	$273.05	$274.28	$274.90
Intervention Period Enhanced MTM Mean	$316.90	$335.16	$315.72	$315.13	$295.86
Baseline Comparison MTM Mean	$271.18	$271.42	$269.32	$271.38	$272.76
Intervention Period Comparison MTM Mean	$319.06	$335.46	$317.83	$319.12	$298.57

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.8: SilverScript/CVS: Expenditures for Inpatient Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $2.73	- $1.75	- $3.17	**- $5.92**	$0.08
P-value	0.142	0.456	0.208	0.024	0.977
95% Confidence Interval	(-6.37 , 0.91)	(-6.35 , 2.85)	(-8.09 , 1.76)	(-11.08 , -0.77)	(-5.14 , 5.29)
Relative Difference	-0.98%	-0.62%	-1.13%	-2.14%	0.03%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$278.95	$282.77	$278.98	$277.34	$276.02
Intervention Period Enhanced MTM Mean	$328.64	$343.38	$332.69	$326.21	$308.51
Baseline Comparison MTM Mean	$277.26	$281.03	$276.32	$275.80	$275.33
Intervention Period Comparison MTM Mean	$329.68	$343.40	$333.19	$330.59	$307.75

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.9: Humana: Expenditures for Inpatient Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**- $7.13****	- $0.65	**- $7.05***	**- $13.54*****	**- $13.93*****
P-value	0.021	0.868	0.093	0.002	0.002
95% Confidence Interval	(-13.21 , -1.05)	(-8.36 , 7.05)	(-15.28 , 1.18)	(-21.96 , -5.12)	(-22.61 , -5.25)
Relative Difference	-2.27%	-0.21%	-2.25%	-4.32%	-4.44%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$313.70	$313.66	$313.91	$313.71	$313.49
Intervention Period Enhanced MTM Mean	$346.17	$381.71	$334.38	$326.72	$306.80
Baseline Comparison MTM Mean	$307.46	$307.76	$306.59	$307.52	$307.85
Intervention Period Comparison MTM Mean	$347.06	$376.46	$334.11	$334.07	$315.08

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.10: BCBS NPA: Expenditures for Inpatient Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$0.37	- $0.29	- $4.09	- $0.06	$6.82
P-value	0.940	0.960	0.536	0.992	0.264
95% Confidence Interval	(-9.25 , 9.99)	(-11.63 , 11.06)	(-17.06 , 8.88)	(-12.19 , 12.06)	(-5.15 , 18.78)
Relative Difference	0.19%	-0.15%	-2.08%	-0.03%	3.47%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$196.36	$195.60	$196.50	$196.81	$196.63
Intervention Period Enhanced MTM Mean	$247.60	$251.15	$249.02	$254.35	$234.31
Baseline Comparison MTM Mean	$205.82	$205.78	$205.53	$205.95	$206.07
Intervention Period Comparison MTM Mean	$256.70	$261.61	$262.14	$263.55	$236.93

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.11: UnitedHealth: Expenditures for Inpatient Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $12.83***	- $13.59**	- $16.97***	- $9.12*	- $12.72**
P-value	0.001	0.014	0.004	0.078	0.012
95% Confidence Interval	(-20.57 , -5.09)	(-24.37 , -2.80)	(-28.5 , -5.45)	(-19.26 , 1.02)	(-22.66 , -2.79)
Relative Difference	-4.86%	-5.34%	-6.66%	-3.35%	-4.68%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$264.02	$254.56	$254.97	$272.12	$271.76
Intervention Period Enhanced MTM Mean	$301.61	$306.12	$289.66	$316.86	$290.45
Baseline Comparison MTM Mean	$256.96	$246.46	$247.14	$265.53	$265.83
Intervention Period Comparison MTM Mean	$307.38	$311.60	$298.79	$319.39	$297.24

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.12: WellCare: Expenditures for Inpatient Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$3.34	$7.48	$2.97	$5.35	- $3.36
P-value	0.352	0.102	0.548	0.319	0.536
95% Confidence Interval	(-3.69 , 10.37)	(-1.49 , 16.45)	(-6.72 , 12.66)	(-5.17 , 15.87)	(-13.98 , 7.27)
Relative Difference	1.16%	2.63%	1.04%	1.87%	-1.14%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$287.35	$283.82	$285.47	$286.26	$294.92
Intervention Period Enhanced MTM Mean	$346.08	$351.53	$346.09	$350.06	$335.43
Baseline Comparison MTM Mean	$280.95	$278.38	$277.06	$278.23	$291.15
Intervention Period Comparison MTM Mean	$336.34	$338.61	$334.70	$336.68	$335.01

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.13: BCBS FL: Expenditures for Inpatient Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**- $20.98*****	**- $26.87*****	- $11.91	**- $20.77****	**- $24.31****
P-value	0.002	0.004	0.214	0.021	0.011
95% Confidence Interval	(-34.49 , -7.47)	(-45.01 , -8.73)	(-30.68 , 6.87)	(-38.42 , -3.12)	(-42.95 , -5.66)
Relative Difference	-9.75%	-12.50%	-5.53%	-9.65%	-11.28%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$215.21	$214.93	$215.25	$215.21	$215.49
Intervention Period Enhanced MTM Mean	$281.65	$278.33	$289.55	$288.69	$269.37
Baseline Comparison MTM Mean	$203.48	$204.01	$203.71	$203.42	$202.62
Intervention Period Comparison MTM Mean	$290.90	$294.29	$289.92	$297.66	$280.81

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

Institutional Post-acute Care

Table B.3.14: Modelwide: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $4.60***	- $4.57***	- $4.10***	- $2.60*	- $7.35***
P-value	<0.001	0.005	0.006	0.061	<0.001
95% Confidence Interval	(-6.84 , -2.36)	(-7.73 , -1.41)	(-7.05 , -1.15)	(-5.33 , 0.12)	(-10.91 , -3.78)
Relative Difference	-3.93%	-3.90%	-3.51%	-2.23%	-6.29%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$116.93	$117.09	$116.82	$117.00	$116.78
Intervention Period Enhanced MTM Mean	$136.66	$139.00	$132.10	$132.39	$143.32
Baseline Comparison MTM Mean	$124.44	$125.56	$124.25	$123.89	$123.76
Intervention Period Comparison MTM Mean	$148.76	$152.04	$143.63	$141.88	$157.64

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.15: SilverScript/CVS: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $3.89***	- $3.84**	- $5.19***	- $2.67	- $3.77*
P-value	0.003	0.021	0.003	0.134	0.050
95% Confidence Interval	(-6.47 , -1.31)	(-7.09 , -0.58)	(-8.59 , -1.79)	(-6.16 , 0.82)	(-7.55 , 0.01)
Relative Difference	-3.10%	-3.02%	-4.13%	-2.13%	-3.02%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$125.71	$126.92	$125.70	$125.25	$124.77
Intervention Period Enhanced MTM Mean	$147.27	$147.18	$142.05	$141.89	$159.39
Baseline Comparison MTM Mean	$132.25	$134.59	$131.98	$131.12	$130.94
Intervention Period Comparison MTM Mean	$157.70	$158.69	$153.52	$150.43	$169.34

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.16: Humana: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**- $7.37*****	**- $4.71***	- $4.60	**- $8.20*****	**- $15.57*****
P-value	0.001	0.088	0.102	0.004	<0.001
95% Confidence Interval	(-11.72 , -3.03)	(-10.12 , 0.70)	(-10.12 , 0.91)	(-13.85 , -2.54)	(-21.56 , -9.58)
Relative Difference	-5.77%	-3.67%	-3.60%	-6.41%	-12.27%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$127.90	$128.38	$127.96	$127.82	$126.90
Intervention Period Enhanced MTM Mean	$137.21	$151.81	$126.71	$124.30	$133.48
Baseline Comparison MTM Mean	$137.19	$138.26	$137.06	$136.71	$135.59
Intervention Period Comparison MTM Mean	$153.87	$166.39	$140.41	$141.40	$157.74

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.17: BCBS NPA: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$8.08	$3.10	$8.85	**$14.62****	$6.30
P-value	0.141	0.723	0.176	0.014	0.519
95% Confidence Interval	(-2.68 , 18.85)	(-14.06 , 20.27)	(-3.96 , 21.65)	(2.97 , 26.27)	(-12.84 , 25.44)
Relative Difference	9.03%	3.46%	9.87%	16.31%	7.06%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$89.55	$89.61	$89.66	$89.67	$89.21
Intervention Period Enhanced MTM Mean	$122.64	$116.20	$120.88	$125.04	$130.05
Baseline Comparison MTM Mean	$100.59	$100.77	$100.16	$100.85	$100.57
Intervention Period Comparison MTM Mean	$125.60	$124.25	$122.53	$121.60	$135.11

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.18: UnitedHealth: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**- $11.62*****	**- $9.34*****	**- $11.56*****	**- $9.53*****	**- $16.15*****
P-value	<0.001	0.007	0.005	0.001	<0.001
95% Confidence Interval	(-16.53 , -6.70)	(-16.18 , -2.50)	(-19.72 , -3.41)	(-15.41 , -3.65)	(-22.29 , -10.01)
Relative Difference	-11.73%	-9.80%	-12.14%	-9.30%	-15.81%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$99.09	$95.31	$95.23	$102.50	$102.17
Intervention Period Enhanced MTM Mean	$115.04	$114.16	$110.23	$116.14	$118.66
Baseline Comparison MTM Mean	$106.43	$104.67	$104.53	$108.22	$107.72
Intervention Period Comparison MTM Mean	$133.99	$132.86	$131.09	$131.38	$140.36

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.19: WellCare: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**- $4.25***	- $1.37	- $4.32	- $2.69	**- $9.26****
P-value	0.092	0.661	0.207	0.457	0.014
95% Confidence Interval	(-9.19 , 0.69)	(-7.52 , 4.77)	(-11.02 , 2.38)	(-9.79 , 4.41)	(-16.66 , -1.87)
Relative Difference	-3.44%	-1.13%	-3.51%	-2.16%	-7.41%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$123.54	$122.11	$123.05	$124.44	$124.98
Intervention Period Enhanced MTM Mean	$152.95	$146.95	$148.23	$151.32	$167.25
Baseline Comparison MTM Mean	$120.86	$119.75	$119.30	$121.25	$123.60
Intervention Period Comparison MTM Mean	$154.52	$145.97	$148.80	$150.81	$175.13

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.20: BCBS FL: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**- $19.02*****	**- $27.12*****	**- $14.70****	**- $11.75***	**- $21.75*****
P-value	0.001	<0.001	0.048	0.072	0.010
95% Confidence Interval	(-29.93 , -8.11)	(-39.67 , -14.56)	(-29.28 , -0.11)	(-24.53 , 1.03)	(-38.25 , -5.25)
Relative Difference	-23.93%	-33.93%	-18.44%	-14.77%	-27.62%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$79.50	$79.92	$79.70	$79.52	$78.74
Intervention Period Enhanced MTM Mean	$104.40	$100.53	$109.48	$110.38	$97.07
Baseline Comparison MTM Mean	$97.26	$97.93	$97.54	$97.35	$96.05
Intervention Period Comparison MTM Mean	$141.18	$145.66	$142.02	$139.95	$136.14

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

Emergency Department

Table B.3.21: Modelwide: Expenditures for Emergency Department, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.15***	**$0.84***	**$1.04***	**$1.17***	**$1.66***
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(0.93 , 1.37)	(0.56 , 1.11)	(0.75 , 1.33)	(0.87 , 1.46)	(1.38 , 1.94)
Relative Difference	3.80%	2.78%	3.48%	3.85%	5.45%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$30.20	$30.09	$29.89	$30.37	$30.51
Intervention Period Enhanced MTM Mean	$30.63	$32.97	$31.65	$31.83	$25.07
Baseline Comparison MTM Mean	$31.98	$32.01	$31.64	$32.08	$32.23
Intervention Period Comparison MTM Mean	$31.27	$34.06	$32.36	$32.36	$25.13

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.22: SilverScript/CVS: Expenditures for Emergency Department, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.32***	**$1.00***	**$1.14***	**$1.27***	**$1.97***
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(1.04 , 1.6)	(0.69 , 1.32)	(0.78 , 1.51)	(0.89 , 1.65)	(1.6 , 2.34)
Relative Difference	4.20%	3.13%	3.63%	4.08%	6.38%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$31.45	$32.11	$31.48	$31.17	$30.90
Intervention Period Enhanced MTM Mean	$32.51	$34.99	$34.37	$33.58	$26.11
Baseline Comparison MTM Mean	$33.27	$34.08	$33.27	$32.93	$32.65
Intervention Period Comparison MTM Mean	$33.01	$35.96	$35.01	$34.07	$25.89

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.23: Humana: Expenditures for Emergency Department, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.26*****	**$0.71***	**$1.57*****	**$1.23*****	**$2.07*****
P-value	<0.001	0.065	<0.001	0.001	<0.001
95% Confidence Interval	(0.70 , 1.82)	(-0.04 , 1.47)	(0.84 , 2.31)	(0.47 , 1.99)	(1.34 , 2.80)
Relative Difference	3.53%	1.99%	4.41%	3.44%	5.81%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$35.70	$35.74	$35.68	$35.72	$35.63
Intervention Period Enhanced MTM Mean	$34.36	$38.46	$34.50	$33.52	$26.43
Baseline Comparison MTM Mean	$38.25	$38.43	$38.11	$38.18	$38.08
Intervention Period Comparison MTM Mean	$35.64	$40.44	$35.35	$34.75	$26.81

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.24: BCBS NPA: Expenditures for Emergency Department, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$0.57***	**$0.58***	- $0.05	$0.34	**$1.54*****
P-value	0.056	0.097	0.898	0.432	<0.001
95% Confidence Interval	(-0.01 , 1.16)	(-0.11 , 1.26)	(-0.85 , 0.75)	(-0.51 , 1.19)	(0.78 , 2.29)
Relative Difference	3.27%	3.32%	-0.30%	1.95%	8.78%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$17.47	$17.43	$17.47	$17.49	$17.48
Intervention Period Enhanced MTM Mean	$21.64	$21.07	$22.16	$23.35	$19.90
Baseline Comparison MTM Mean	$20.40	$20.36	$20.36	$20.43	$20.45
Intervention Period Comparison MTM Mean	$24.00	$23.42	$25.10	$25.95	$21.34

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.25: UnitedHealth: Expenditures for Emergency Department, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.07***	**$0.82**	**$1.17***	**$1.37***	**$0.90***
P-value	<0.001	0.023	0.003	<0.001	0.006
95% Confidence Interval	(0.54 , 1.61)	(0.11 , 1.53)	(0.39 , 1.96)	(0.72 , 2.01)	(0.26 , 1.55)
Relative Difference	3.86%	3.30%	4.70%	4.51%	3.01%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$27.77	$24.94	$24.95	$30.30	$30.07
Intervention Period Enhanced MTM Mean	$27.81	$27.47	$26.73	$32.11	$24.31
Baseline Comparison MTM Mean	$28.87	$26.19	$26.17	$31.28	$31.06
Intervention Period Comparison MTM Mean	$27.84	$27.89	$26.78	$31.72	$24.39

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.26: WellCare: Expenditures for Emergency Department, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.00***	**$1.24***	**$0.94**	**$0.79***	**$0.98**
P-value	0.001	<0.001	0.016	0.076	0.016
95% Confidence Interval	(0.41 , 1.60)	(0.59 , 1.89)	(0.17 , 1.71)	(-0.08 , 1.67)	(0.18 , 1.78)
Relative Difference	2.88%	3.63%	2.74%	2.29%	2.69%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$34.84	$34.19	$34.30	$34.63	$36.48
Intervention Period Enhanced MTM Mean	$35.60	$37.37	$37.28	$36.89	$30.25
Baseline Comparison MTM Mean	$34.24	$33.70	$33.50	$33.79	$36.19
Intervention Period Comparison MTM Mean	$34.00	$35.65	$35.54	$35.26	$28.98

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.27: BCBS FL: Expenditures for Emergency Department, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$0.54	$0.61	$0.59	$0.78	$0.14
P-value	0.250	0.272	0.284	0.230	0.819
95% Confidence Interval	(-0.38 , 1.45)	(-0.48 , 1.70)	(-0.49 , 1.67)	(-0.49 , 2.05)	(-1.06 , 1.35)
Relative Difference	2.78%	3.16%	3.05%	4.03%	0.73%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$19.30	$19.24	$19.29	$19.29	$19.38
Intervention Period Enhanced MTM Mean	$23.14	$22.91	$24.67	$25.39	$19.34
Baseline Comparison MTM Mean	$19.43	$19.47	$19.45	$19.43	$19.37
Intervention Period Comparison MTM Mean	$22.74	$22.53	$24.23	$24.75	$19.19

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

Outpatient Services Excluding Emergency Department (ED)

Table B.3.28: Modelwide: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$3.04*****	**$2.02*****	**$3.63*****	**$3.28*****	**$3.47*****
P-value	<0.001	0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(2.04 , 4.04)	(0.88 , 3.16)	(2.35 , 4.91)	(1.9 , 4.67)	(2.11 , 4.82)
Relative Difference	1.50%	1.01%	1.79%	1.60%	1.68%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$203.14	$200.08	$202.44	$204.87	$206.13
Intervention Period Enhanced MTM Mean	$214.64	$206.48	$220.10	$228.59	$204.25
Baseline Comparison MTM Mean	$201.54	$199.60	$200.37	$202.72	$204.15
Intervention Period Comparison MTM Mean	$210.00	$203.99	$214.41	$223.17	$198.80

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.29: SilverScript/CVS: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$3.66*****	**$2.34*****	**$3.62*****	**$4.96*****	**$3.89*****
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(2.52 , 4.80)	(1.03 , 3.66)	(2.14 , 5.11)	(3.33 , 6.58)	(2.23 , 5.56)
Relative Difference	1.80%	1.18%	1.79%	2.41%	1.87%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$203.47	$199.19	$202.13	$205.80	$207.72
Intervention Period Enhanced MTM Mean	$213.85	$205.88	$217.18	$228.20	$204.00
Baseline Comparison MTM Mean	$198.89	$195.84	$196.93	$200.76	$202.85
Intervention Period Comparison MTM Mean	$205.61	$200.19	$208.36	$218.20	$195.24

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.30: Humana: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$2.52*****	$1.25	**$3.96*****	**$2.65****	**$3.26****
P-value	0.006	0.222	0.001	0.044	0.017
95% Confidence Interval	(0.71 , 4.32)	(-0.76 , 3.26)	(1.54 , 6.38)	(0.07 , 5.22)	(0.59 , 5.92)
Relative Difference	1.30%	0.66%	2.05%	1.35%	1.63%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$193.77	$189.65	$193.26	$196.36	$200.29
Intervention Period Enhanced MTM Mean	$205.44	$194.25	$213.98	$221.74	$200.67
Baseline Comparison MTM Mean	$192.98	$189.87	$191.27	$194.96	$199.55
Intervention Period Comparison MTM Mean	$202.14	$193.22	$208.03	$217.70	$196.68

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.31: BCBS NPA: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $0.10	$1.80	- $1.11	- $1.82	$0.59
P-value	0.964	0.429	0.650	0.550	0.830
95% Confidence Interval	(-4.34 , 4.14)	(-2.66 , 6.25)	(-5.89 , 3.67)	(-7.78 , 4.14)	(-4.83 , 6.02)
Relative Difference	-0.05%	0.97%	-0.59%	-0.97%	0.32%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$186.72	$185.95	$186.80	$187.01	$187.26
Intervention Period Enhanced MTM Mean	$202.79	$196.84	$207.51	$215.81	$190.61
Baseline Comparison MTM Mean	$198.04	$197.78	$197.84	$198.22	$198.38
Intervention Period Comparison MTM Mean	$214.20	$206.87	$219.66	$228.84	$201.14

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.32: UnitedHealth: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$7.61***	**$3.64***	**$9.50***	**$7.03***	**$10.49***
P-value	<0.001	0.078	<0.001	<0.001	<0.001
95% Confidence Interval	(4.45 , 10.78)	(-0.40 , 7.69)	(4.93 , 14.08)	(3.40 , 10.67)	(6.88 , 14.11)
Relative Difference	3.36%	1.58%	4.12%	3.16%	4.67%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$226.78	$229.77	$230.80	$222.92	$224.82
Intervention Period Enhanced MTM Mean	$233.13	$232.98	$245.35	$238.72	$216.96
Baseline Comparison MTM Mean	$227.01	$230.59	$231.46	$222.50	$224.82
Intervention Period Comparison MTM Mean	$225.74	$230.16	$236.50	$231.26	$206.47

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.33: WellCare: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$0.63	$1.72	$1.59	$1.27	- $2.40
P-value	0.580	0.207	0.295	0.457	0.130
95% Confidence Interval	(-1.61 , 2.87)	(-0.95 , 4.39)	(-1.39 , 4.56)	(-2.07 , 4.60)	(-5.52 , 0.71)
Relative Difference	0.31%	0.86%	0.78%	0.62%	-1.20%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$201.80	$200.51	$202.81	$203.63	$200.47
Intervention Period Enhanced MTM Mean	$210.77	$208.33	$216.98	$225.29	$192.68
Baseline Comparison MTM Mean	$194.14	$193.47	$194.32	$194.99	$193.92
Intervention Period Comparison MTM Mean	$202.48	$199.58	$206.90	$215.38	$188.53

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.34: BCBS FL: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$5.92***	$1.75	**$8.52****	$6.41	**$7.49***
P-value	0.065	0.636	0.026	0.102	0.085
95% Confidence Interval	(-0.37 , 12.20)	(-5.50 , 9.00)	(1.03 , 16.01)	(-1.28 , 14.11)	(-1.04 , 16.03)
Relative Difference	2.45%	0.73%	3.53%	2.66%	3.09%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$241.50	$240.94	$241.49	$241.57	$242.13
Intervention Period Enhanced MTM Mean	$253.62	$246.17	$258.78	$268.61	$241.05
Baseline Comparison MTM Mean	$235.95	$236.18	$236.12	$236.10	$235.31
Intervention Period Comparison MTM Mean	$242.15	$239.66	$244.89	$256.73	$226.74

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

Ancillary Services

Table B.3.35: Modelwide: Expenditures for Ancillary Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.55***	**$0.46***	**$1.31***	**$1.48***	**$3.36***
P-value	<0.001	0.059	<0.001	<0.001	<0.001
95% Confidence Interval	(1.10 , 2.00)	(-0.02 , 0.94)	(0.73 , 1.89)	(0.85 , 2.11)	(2.69 , 4.02)
Relative Difference	1.66%	0.50%	1.40%	1.57%	3.55%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$93.55	$92.60	$93.28	$94.10	$94.54
Intervention Period Enhanced MTM Mean	$97.67	$93.55	$98.87	$101.68	$97.44
Baseline Comparison MTM Mean	$96.16	$95.83	$95.73	$96.39	$96.83
Intervention Period Comparison MTM Mean	$98.72	$96.32	$100.01	$102.49	$96.38

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.36: SilverScript/CVS: Expenditures for Ancillary Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.76***	$0.24	**$0.91***	**$1.85***	**$4.50***
P-value	<0.001	0.413	0.008	<0.001	<0.001
95% Confidence Interval	(1.22 , 2.29)	(-0.34 , 0.83)	(0.23 , 1.58)	(1.07 , 2.63)	(3.69 , 5.31)
Relative Difference	1.88%	0.26%	0.97%	1.96%	4.75%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$93.61	$92.49	$93.20	$94.24	$94.77
Intervention Period Enhanced MTM Mean	$98.49	$93.67	$99.08	$102.93	$98.84
Baseline Comparison MTM Mean	$95.67	$95.40	$95.09	$95.93	$96.38
Intervention Period Comparison MTM Mean	$98.79	$96.34	$100.06	$102.77	$95.95

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.37: Humana: Expenditures for Ancillary Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$0.10	- $0.79	$0.10	$0.18	**$1.93***
P-value	0.823	0.108	0.869	0.800	0.008
95% Confidence Interval	(-0.81 , 1.02)	(-1.76 , 0.17)	(-1.14 , 1.34)	(-1.2 , 1.55)	(0.5 , 3.36)
Relative Difference	0.11%	-0.87%	0.11%	0.19%	2.04%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$92.32	$90.90	$92.17	$93.22	$94.53
Intervention Period Enhanced MTM Mean	$94.82	$91.13	$97.00	$99.07	$95.26
Baseline Comparison MTM Mean	$96.30	$95.45	$95.69	$96.83	$98.25
Intervention Period Comparison MTM Mean	$98.69	$96.47	$100.42	$102.51	$97.05

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.38: BCBS NPA: Expenditures for Ancillary Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.82****	**$3.66***	**$1.96***	$1.02	$0.26
P-value	0.035	<0.001	0.061	0.374	0.844
95% Confidence Interval	(0.13 , 3.52)	(1.99 , 5.32)	(-0.09 , 4.01)	(-1.23 , 3.27)	(-2.34 , 2.86)
Relative Difference	2.20%	4.44%	2.37%	1.23%	0.31%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$82.66	$82.45	$82.70	$82.75	$82.79
Intervention Period Enhanced MTM Mean	$89.13	$85.75	$90.26	$91.91	$89.01
Baseline Comparison MTM Mean	$87.26	$87.18	$87.26	$87.33	$87.30
Intervention Period Comparison MTM Mean	$91.91	$86.82	$92.85	$95.47	$93.26

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.39: UnitedHealth: Expenditures for Ancillary Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$3.17*****	**$1.49***	**$3.72*****	**$2.64*****	**$4.89*****
P-value	<0.001	0.087	<0.001	0.002	<0.001
95% Confidence Interval	(1.78 , 4.55)	(-0.22 , 3.20)	(1.69 , 5.75)	(0.95 , 4.33)	(3.12 , 6.66)
Relative Difference	3.06%	1.43%	3.54%	2.59%	4.77%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$103.40	$104.54	$104.91	$102.08	$102.48
Intervention Period Enhanced MTM Mean	$104.69	$103.98	$107.11	$106.32	$101.55
Baseline Comparison MTM Mean	$106.99	$108.67	$108.84	$105.25	$105.76
Intervention Period Comparison MTM Mean	$105.12	$106.62	$107.32	$106.85	$99.94

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.40: WellCare: Expenditures for Ancillary Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$0.24	- $0.46	$0.20	$0.11	$1.27
P-value	0.659	0.413	0.779	0.895	0.130
95% Confidence Interval	(-0.81 , 1.28)	(-1.57 , 0.64)	(-1.18 , 1.57)	(-1.54 , 1.76)	(-0.37 , 2.91)
Relative Difference	0.26%	-0.50%	0.21%	0.12%	1.36%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$92.46	$91.63	$92.51	$92.91	$92.97
Intervention Period Enhanced MTM Mean	$96.49	$92.56	$98.76	$100.75	$94.69
Baseline Comparison MTM Mean	$93.69	$93.29	$93.38	$93.68	$94.55
Intervention Period Comparison MTM Mean	$97.49	$94.68	$99.43	$101.40	$95.00

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.41: BCBS FL: Expenditures for Ancillary Services, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$1.40	- $0.54	$1.56	$1.20	**$3.78****
P-value	0.204	0.647	0.239	0.444	0.020
95% Confidence Interval	(-0.76 , 3.56)	(-2.83 , 1.76)	(-1.04 , 4.15)	(-1.87 , 4.26)	(0.61 , 6.94)
Relative Difference	1.31%	-0.50%	1.45%	1.12%	3.52%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$107.17	$107.08	$107.16	$107.16	$107.29
Intervention Period Enhanced MTM Mean	$110.71	$107.14	$111.72	$115.20	$109.15
Baseline Comparison MTM Mean	$101.46	$101.68	$101.60	$101.53	$100.98
Intervention Period Comparison MTM Mean	$103.60	$102.28	$104.61	$108.37	$99.06

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

B.3.3 Health Service Utilization

This subsection presents the Model impacts on eight health service utilization measures (supplementing Section 3.4 of the main report) first for the Model as a whole, and then by the six individual sponsors. There are a total of 56 tables in this subsection. Findings, both cumulative and by Model Year, for utilization outcomes are presented following sequential subsections:

- Inpatient Admissions

- Inpatient Length of Stay

- Hospital Readmissions

- Skilled Nursing Facility Admissions

- Skilled Nursing Facility Length of Stay

- Emergency Department Visits

- Outpatient Non-Emergency Department Visits

- Evaluation and Management Visits

For the Model as whole, the estimated impacts on utilization of related health services were mostly aligned with the impacts on gross Medicare Parts A and B expenditures, and showed decreases in utilization of some services related to inpatient or institutional post-acute care. Sponsor-level estimates were consistent with the Modelwide findings.

Inpatient Admissions

Table B.3.42: Modelwide: Inpatient Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.02	**0.24***	-0.17	**-0.23***	0.02
P-value	0.814	0.058	0.216	0.090	0.880
95% Confidence Interval	(-0.23 , 0.18)	(-0.01 , 0.48)	(-0.44 , 0.10)	(-0.50 , 0.04)	(-0.24 , 0.28)
Relative Difference	-0.09%	0.92%	-0.68%	-0.90%	0.08%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	25.48	25.51	25.39	25.50	25.52
Intervention Period Enhanced MTM Mean	27.84	30.08	28.18	27.93	24.38
Baseline Comparison MTM Mean	25.16	25.22	24.99	25.16	25.26
Intervention Period Comparison MTM Mean	27.54	29.56	27.95	27.82	24.10

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.43: SilverScript/CVS: Inpatient Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	0.09	0.24	0.03	-0.13	0.23
P-value	0.457	0.103	0.850	0.440	0.187
95% Confidence Interval	(-0.15 , 0.33)	(-0.05 , 0.53)	(-0.29 , 0.35)	(-0.47 , 0.21)	(-0.11 , 0.56)
Relative Difference	0.35%	0.91%	0.12%	-0.52%	0.88%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	25.97	26.35	25.98	25.83	25.67
Intervention Period Enhanced MTM Mean	29.01	30.99	29.90	29.14	25.42
Baseline Comparison MTM Mean	25.62	26.03	25.56	25.46	25.36
Intervention Period Comparison MTM Mean	28.57	30.42	29.45	28.91	24.89

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.44: Humana: Inpatient Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	0.06	**0.89*****	-0.18	**-0.69****	**-0.56***
P-value	0.794	0.001	0.571	0.032	0.077
95% Confidence Interval	(-0.40 , 0.53)	(0.36 , 1.42)	(-0.79 , 0.44)	(-1.32 , -0.06)	(-1.19 , 0.06)
Relative Difference	0.21%	2.96%	-0.59%	-2.31%	-1.90%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	29.88	29.94	29.90	29.88	29.74
Intervention Period Enhanced MTM Mean	30.45	34.53	29.51	28.65	24.92
Baseline Comparison MTM Mean	29.55	29.65	29.46	29.52	29.47
Intervention Period Comparison MTM Mean	30.05	33.36	29.26	28.98	25.22

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.45: BCBS NPA: Inpatient Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.16	-0.40	-0.20	-0.48	0.51
P-value	0.671	0.386	0.668	0.303	0.295
95% Confidence Interval	(-0.91 , 0.58)	(-1.29 , 0.5)	(-1.11 , 0.71)	(-1.39 , 0.43)	(-0.45 , 1.48)
Relative Difference	-0.93%	-2.28%	-1.15%	-2.74%	2.95%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	17.42	17.37	17.43	17.45	17.42
Intervention Period Enhanced MTM Mean	21.89	22.31	22.47	22.58	19.96
Baseline Comparison MTM Mean	18.08	18.07	18.05	18.10	18.11
Intervention Period Comparison MTM Mean	22.72	23.40	23.30	23.71	20.14

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.46: UnitedHealth: Inpatient Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.34	-0.36	**-0.65***	-0.11	-0.30
P-value	0.163	0.305	0.077	0.720	0.315
95% Confidence Interval	(-0.81 , 0.14)	(-1.04 , 0.33)	(-1.38 , 0.07)	(-0.71 , 0.49)	(-0.89 , 0.29)
Relative Difference	-1.40%	-1.54%	-2.83%	-0.44%	-1.22%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	24.00	23.07	23.08	24.83	24.74
Intervention Period Enhanced MTM Mean	25.91	26.87	25.58	27.51	23.51
Baseline Comparison MTM Mean	23.31	22.27	22.31	24.20	24.18
Intervention Period Comparison MTM Mean	25.56	26.43	25.46	26.99	23.26

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.47: WellCare: Inpatient Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	0.28	0.36	-0.13	**0.71***	0.20
P-value	0.265	0.223	0.708	0.054	0.561
95% Confidence Interval	(-0.21 , 0.76)	(-0.22 , 0.94)	(-0.78 , 0.53)	(-0.01 , 1.43)	(-0.49 , 0.89)
Relative Difference	1.04%	1.36%	-0.47%	2.66%	0.74%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	26.72	26.37	26.49	26.60	27.52
Intervention Period Enhanced MTM Mean	30.35	31.31	30.70	31.24	27.91
Baseline Comparison MTM Mean	25.77	25.45	25.33	25.51	26.91
Intervention Period Comparison MTM Mean	29.12	30.03	29.66	29.43	27.09

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.48: BCBS FL: Inpatient Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.45	-0.28	-0.55	-0.61	-0.39
P-value	0.393	0.676	0.531	0.396	0.542
95% Confidence Interval	(-1.49 , 0.59)	(-1.57 , 1.02)	(-2.27 , 1.17)	(-2.01 , 0.8)	(-1.66 , 0.87)
Relative Difference	-2.34%	-1.42%	-2.84%	-3.13%	-2.04%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	19.40	19.39	19.42	19.41	19.39
Intervention Period Enhanced MTM Mean	24.49	24.47	25.24	25.76	22.35
Baseline Comparison MTM Mean	18.79	18.86	18.81	18.79	18.68
Intervention Period Comparison MTM Mean	24.34	24.22	25.19	25.74	22.04

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

Inpatient Length of Stay

Table B.3.49: Modelwide: Inpatient Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	1.12	**2.31****	-0.40	0.16	**2.29****
P-value	0.198	0.027	0.734	0.891	0.049
95% Confidence Interval	(-0.59 , 2.83)	(0.27 , 4.36)	(-2.70 , 1.90)	(-2.11 , 2.43)	(0.01 , 4.58)
Relative Difference	0.66%	1.36%	-0.24%	0.09%	1.35%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	169.78	170.44	168.98	169.76	169.83
Intervention Period Enhanced MTM Mean	189.51	205.86	189.28	186.39	171.39
Baseline Comparison MTM Mean	168.09	168.91	166.64	168.07	168.63
Intervention Period Comparison MTM Mean	186.69	202.02	187.35	184.54	167.89

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.50: SilverScript/CVS: Inpatient Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	1.86	**2.37***	0.52	-0.15	**5.00*****
P-value	0.120	0.098	0.743	0.924	0.002
95% Confidence Interval	(-0.48 , 4.19)	(-0.44 , 5.17)	(-2.60 , 3.64)	(-3.35 , 3.04)	(1.78 , 8.22)
Relative Difference	1.04%	1.30%	0.29%	-0.09%	2.87%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	177.76	181.98	178.00	175.91	174.33
Intervention Period Enhanced MTM Mean	203.47	217.91	207.93	199.65	184.75
Baseline Comparison MTM Mean	175.34	179.94	175.31	173.38	171.88
Intervention Period Comparison MTM Mean	199.20	213.50	204.71	197.28	177.30

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.51: Humana: Inpatient Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	2.76	**6.54***	2.52	0.29	-2.27
P-value	0.198	0.007	0.377	0.923	0.434
95% Confidence Interval	(-1.44 , 6.95)	(1.80 , 11.28)	(-3.07 , 8.11)	(-5.49 , 6.07)	(-7.96 , 3.42)
Relative Difference	1.34%	3.15%	1.22%	0.14%	-1.11%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	206.13	207.41	206.25	205.59	203.87
Intervention Period Enhanced MTM Mean	214.31	245.34	204.53	198.14	178.41
Baseline Comparison MTM Mean	204.17	205.87	203.84	203.27	201.94
Intervention Period Comparison MTM Mean	209.59	237.26	199.60	195.53	178.74

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.52: BCBS NPA: Inpatient Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-2.27	-2.86	-3.69	**-5.02***	3.06
P-value	0.310	0.304	0.208	0.079	0.314
95% Confidence Interval	(-6.66 , 2.11)	(-8.31 , 2.59)	(-9.43 , 2.05)	(-10.63 , 0.59)	(-2.9 , 9.03)
Relative Difference	-2.40%	-3.03%	-3.89%	-5.29%	3.23%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	94.78	94.49	94.86	94.98	94.82
Intervention Period Enhanced MTM Mean	125.53	126.71	127.15	127.19	120.43
Baseline Comparison MTM Mean	99.92	99.98	99.71	99.97	100.03
Intervention Period Comparison MTM Mean	132.95	135.05	135.68	137.21	122.58

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.53: UnitedHealth: Inpatient Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	0.74	0.88	-3.72	4.37	0.33
P-value	0.717	0.755	0.225	0.106	0.905
95% Confidence Interval	(-3.27 , 4.75)	(-4.63 , 6.38)	(-9.73 , 2.29)	(-0.94 , 9.68)	(-5.12 , 5.79)
Relative Difference	0.48%	0.60%	-2.55%	2.68%	0.21%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	155.16	146.12	146.06	163.41	162.34
Intervention Period Enhanced MTM Mean	173.66	177.39	164.13	185.55	164.93
Baseline Comparison MTM Mean	152.08	140.83	140.85	162.18	161.13
Intervention Period Comparison MTM Mean	169.84	171.23	162.65	179.95	163.38

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.54: WellCare: Inpatient Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	1.80	1.89	-0.06	3.47	2.14
P-value	0.439	0.489	0.986	0.305	0.517
95% Confidence Interval	(-2.76 , 6.37)	(-3.47 , 7.26)	(-6.33 , 6.22)	(-3.16 , 10.11)	(-4.33 , 8.62)
Relative Difference	1.01%	1.08%	-0.03%	1.95%	1.15%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	179.00	176.01	177.11	178.07	185.73
Intervention Period Enhanced MTM Mean	210.00	214.13	212.05	211.58	201.05
Baseline Comparison MTM Mean	172.53	169.93	168.64	169.76	182.83
Intervention Period Comparison MTM Mean	201.74	206.16	203.64	199.80	196.01

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.55: BCBS FL: Inpatient Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.14	0.03	1.63	-0.38	-2.08
P-value	0.970	0.995	0.769	0.940	0.674
95% Confidence Interval	(-7.57 , 7.29)	(-9.13 , 9.19)	(-9.29 , 12.55)	(-10.47 , 9.70)	(-11.78 , 7.61)
Relative Difference	-0.13%	0.03%	1.45%	-0.34%	-1.85%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	112.26	112.24	112.27	112.17	112.37
Intervention Period Enhanced MTM Mean	152.31	153.03	156.82	157.51	140.91
Baseline Comparison MTM Mean	112.98	113.51	113.16	112.96	112.17
Intervention Period Comparison MTM Mean	153.18	154.27	156.08	158.69	142.79

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

Hospital Readmissions

Table B.3.56: Modelwide: Rate of Hospital Readmissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	**-5.29*****	**-2.98****	**-6.53*****	**-6.35*****	**-6.11*****
P-value	<0.001	0.016	<0.001	<0.001	<0.001
95% Confidence Interval	(-7.32 , -3.26)	(-5.41 , -0.56)	(-9.22 , -3.84)	(-9.07 , -3.64)	(-8.96 , -3.25)
Relative Difference	-3.60%	-2.02%	-4.43%	-4.33%	-4.16%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	147.14	147.68	147.22	146.72	146.71
Intervention Period Enhanced MTM Rate	171.19	173.58	170.04	170.49	169.66
Baseline Comparison MTM Rate	140.65	140.47	140.45	140.70	141.16
Intervention Period Comparison MTM Rate	169.99	169.35	169.80	170.83	170.22

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 1,677,394 (673,927 beneficiaries). Number of comparison observations: 3,300,989 (1,354,641 beneficiaries).

Table B.3.57: SilverScript/CVS: Rate of Hospital Readmissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	**-4.84*****	-2.68	**-4.79****	**-7.28*****	**-4.99****
P-value	0.002	0.153	0.018	<0.001	0.024
95% Confidence Interval	(-7.93 , -1.74)	(-6.36 , 0.99)	(-8.75 , -0.83)	(-11.37 , -3.19)	(-9.31 , -0.66)
Relative Difference	-3.27%	-1.81%	-3.24%	-4.93%	-3.38%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	148.04	148.68	147.99	147.68	147.65
Intervention Period Enhanced MTM Rate	173.09	174.72	173.75	170.97	172.44
Baseline Comparison MTM Rate	142.35	142.36	141.99	142.52	142.62
Intervention Period Comparison MTM Rate	172.23	171.09	172.54	173.09	172.40

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 728,784 (280,351 beneficiaries). Number of comparison observations: 1,670,047 (673,810 beneficiaries).

Table B.3.58: Humana: Rate of Hospital Readmissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	**-5.41****	-1.50	**-6.73****	**-9.21*****	**-9.91*****
P-value	0.012	0.541	0.028	0.004	0.004
95% Confidence Interval	(-9.64 , -1.18)	(-6.33 , 3.32)	(-12.72 , -0.74)	(-15.52 , -2.89)	(-16.57 , -3.25)
Relative Difference	-3.35%	-0.93%	-4.17%	-5.70%	-6.15%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	161.58	161.86	161.48	161.47	161.06
Intervention Period Enhanced MTM Rate	182.74	187.83	180.04	179.23	176.49
Baseline Comparison MTM Rate	152.42	151.69	152.34	152.94	154.02
Intervention Period Comparison MTM Rate	179.00	179.16	177.63	179.91	179.37

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 364,106 (144,110 beneficiaries). Number of comparison observations: 826,614 (334,439 beneficiaries).

Table B.3.59: BCBS NPA: Rate of Hospital Readmissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	-4.17	**-7.32****	**-6.47***	-0.08	-1.82
P-value	0.119	0.027	0.058	0.981	0.625
95% Confidence Interval	(-9.43 , 1.08)	(-13.79 , -0.85)	(-13.16 , 0.22)	(-7.04 , 6.87)	(-9.09 , 5.46)
Relative Difference	-4.35%	-7.63%	-6.73%	-0.09%	-1.90%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	96.01	95.99	96.13	96.04	95.82
Intervention Period Enhanced MTM Rate	124.00	122.49	122.11	127.88	123.81
Baseline Comparison MTM Rate	101.46	101.36	101.34	101.53	101.67
Intervention Period Comparison MTM Rate	133.63	135.18	133.79	133.46	131.47

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 177,769 (83,083 beneficiaries). Number of comparison observations: 268,590 (123,624 beneficiaries).

Table B.3.60: UnitedHealth: Rate of Hospital Readmissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	**-6.56****	-1.12	**-11.94*****	**-7.34****	**-6.59***
P-value	0.017	0.768	0.004	0.034	0.078
95% Confidence Interval	(-11.93 , -1.19)	(-8.55 , 6.31)	(-20.04 , -3.85)	(-14.12 , -0.56)	(-13.91 , 0.73)
Relative Difference	-4.58%	-0.77%	-8.17%	-5.21%	-4.69%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	143.38	146.19	146.12	141.04	140.72
Intervention Period Enhanced MTM Rate	168.59	174.11	165.21	167.85	166.54
Baseline Comparison MTM Rate	135.48	136.76	137.31	133.86	134.46
Intervention Period Comparison MTM Rate	167.25	165.80	168.33	168.01	166.87

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 195,018 (81,678 beneficiaries). Number of comparison observations: 456,557 (200,327 beneficiaries).

Table B.3.61: WellCare: Rate of Hospital Readmissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	-3.26	-5.43	-2.64	2.25	-7.14
P-value	0.334	0.178	0.547	0.625	0.127
95% Confidence Interval	(-9.88 , 3.36)	(-13.33 , 2.47)	(-11.24 , 5.96)	(-6.77 , 11.27)	(-16.3 , 2.03)
Relative Difference	-2.18%	-3.63%	-1.77%	1.51%	-4.75%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	149.34	149.55	148.92	148.75	150.23
Intervention Period Enhanced MTM Rate	176.15	173.66	175.63	180.46	175.48
Baseline Comparison MTM Rate	144.52	144.58	143.73	143.82	146.20
Intervention Period Comparison MTM Rate	174.59	174.12	173.09	173.29	178.59

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 145,327 (56,621 beneficiaries). Number of comparison observations: 485,388 (202,336 beneficiaries).

Table B.3.62: BCBS FL: Rate of Hospital Readmissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	**-11.54****	**-9.75***	**-13.91****	-8.99	**-13.98****
P-value	0.015	0.090	0.022	0.161	0.034
95% Confidence Interval	(-20.85 , -2.23)	(-21.02 , 1.52)	(-25.84 , -1.97)	(-21.56 , 3.58)	(-26.88 , -1.09)
Relative Difference	-9.83%	-8.32%	-11.87%	-7.68%	-11.84%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	117.38	117.24	117.20	117.14	118.09
Intervention Period Enhanced MTM Rate	149.29	143.43	148.82	152.90	153.20
Baseline Comparison MTM Rate	98.36	98.56	98.50	98.28	98.00
Intervention Period Comparison MTM Rate	141.81	134.51	144.04	143.03	147.10

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 66,390 (28,084 beneficiaries). Number of comparison observations: 102,242 (45,599 beneficiaries).

Skilled Nursing Facility (SNF) Admissions

Table B.3.63: Modelwide: SNF Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.10****	0.04	-0.08	**-0.13****	**-0.30*****
P-value	0.022	0.475	0.199	0.031	<0.001
95% Confidence Interval	(-0.19 , -0.02)	(-0.07 , 0.16)	(-0.20 , 0.04)	(-0.25 , -0.01)	(-0.43 , -0.17)
Relative Difference	-1.89%	0.76%	-1.46%	-2.34%	-5.40%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	5.55	5.56	5.55	5.56	5.56
Intervention Period Enhanced MTM Mean	6.73	7.03	6.71	6.51	6.58
Baseline Comparison MTM Mean	5.28	5.29	5.25	5.28	5.28
Intervention Period Comparison MTM Mean	6.55	6.72	6.49	6.36	6.60

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.64: SilverScript/CVS: SNF Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.11***	-0.06	-0.09	**-0.13***	**-0.16****
P-value	0.055	0.393	0.217	0.097	0.049
95% Confidence Interval	(-0.22 , 0.00)	(-0.20 , 0.08)	(-0.24 , 0.06)	(-0.28 , 0.02)	(-0.33 , 0.00)
Relative Difference	-1.89%	-1.05%	-1.64%	-2.25%	-2.84%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	5.73	5.76	5.72	5.72	5.72
Intervention Period Enhanced MTM Mean	6.96	7.14	6.90	6.64	7.16
Baseline Comparison MTM Mean	5.55	5.62	5.53	5.52	5.53
Intervention Period Comparison MTM Mean	6.89	7.06	6.80	6.57	7.13

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.65: Humana: SNF Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.53***	-0.14	**-0.56***	**-0.75***	**-1.09***
P-value	<0.001	0.208	<0.001	<0.001	<0.001
95% Confidence Interval	(-0.71 , -0.36)	(-0.37 , 0.08)	(-0.79 , -0.32)	(-0.99 , -0.51)	(-1.34 , -0.85)
Relative Difference	-8.86%	-2.39%	-9.23%	-12.43%	-18.22%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	6.03	6.03	6.03	6.03	6.00
Intervention Period Enhanced MTM Mean	6.70	7.47	6.40	6.11	6.11
Baseline Comparison MTM Mean	5.43	5.43	5.41	5.45	5.44
Intervention Period Comparison MTM Mean	6.64	7.01	6.34	6.27	6.64

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.66: BCBS NPA: SNF Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**0.91***	**0.96***	**0.94***	**0.84***	**0.89***
P-value	<0.001	<0.001	<0.001	0.001	0.004
95% Confidence Interval	(0.50 , 1.32)	(0.46 , 1.47)	(0.42 , 1.47)	(0.33 , 1.36)	(0.29 , 1.48)
Relative Difference	17.27%	18.20%	17.87%	15.91%	16.89%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	5.28	5.29	5.29	5.29	5.26
Intervention Period Enhanced MTM Mean	7.13	7.25	7.35	7.19	6.65
Baseline Comparison MTM Mean	5.55	5.57	5.54	5.55	5.53
Intervention Period Comparison MTM Mean	6.48	6.57	6.65	6.61	6.04

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.67: UnitedHealth: SNF Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.37*****	-0.16	-0.24	**-0.26****	**-0.79*****
P-value	<0.001	0.297	0.128	0.040	<0.001
95% Confidence Interval	(-0.57 , -0.17)	(-0.46 , 0.14)	(-0.56 , 0.07)	(-0.51 , -0.01)	(-1.05 , -0.53)
Relative Difference	-7.72%	-3.45%	-5.29%	-5.36%	-16.08%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	4.77	4.61	4.61	4.91	4.90
Intervention Period Enhanced MTM Mean	5.66	5.86	5.65	5.76	5.36
Baseline Comparison MTM Mean	4.17	3.93	3.93	4.39	4.37
Intervention Period Comparison MTM Mean	5.43	5.33	5.21	5.50	5.62

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.68: WellCare: SNF Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.08	-0.03	-0.09	0.09	**-0.29***
P-value	0.470	0.825	0.537	0.576	0.072
95% Confidence Interval	(-0.29 , 0.14)	(-0.30 , 0.24)	(-0.39 , 0.21)	(-0.23 , 0.41)	(-0.60 , 0.03)
Relative Difference	-1.43%	-0.56%	-1.72%	1.65%	-5.10%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	5.53	5.43	5.49	5.55	5.66
Intervention Period Enhanced MTM Mean	7.17	7.03	7.11	7.17	7.41
Baseline Comparison MTM Mean	5.31	5.25	5.25	5.34	5.44
Intervention Period Comparison MTM Mean	7.03	6.87	6.96	6.86	7.48

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.69: BCBS FL: SNF Admissions, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.03	0.02	-0.08	0.05	-0.12
P-value	0.874	0.948	0.792	0.852	0.638
95% Confidence Interval	(-0.40 , 0.34)	(-0.46 , 0.49)	(-0.65 , 0.49)	(-0.47 , 0.57)	(-0.61 , 0.37)
Relative Difference	-0.76%	0.39%	-1.91%	1.23%	-2.96%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	3.99	4.01	4.00	3.99	3.96
Intervention Period Enhanced MTM Mean	5.44	5.52	5.69	5.84	4.64
Baseline Comparison MTM Mean	3.86	3.88	3.87	3.86	3.81
Intervention Period Comparison MTM Mean	5.33	5.37	5.63	5.66	4.60

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

Skilled Nursing Facility (SNF) Length of Stay

Table B.3.70: Modelwide: SNF Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-19.26*****	-2.21	**-9.41****	**-18.18*****	**-54.21*****
P-value	<0.001	0.429	0.010	<0.001	<0.001
95% Confidence Interval	(-24.30 , -14.22)	(-7.67 , 3.26)	(-16.58 , -2.24)	(-24.99 , -11.37)	(-60.96 , -47.45)
Relative Difference	-5.89%	-0.67%	-2.88%	-5.57%	-16.82%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	326.72	330.63	326.58	326.15	322.29
Intervention Period Enhanced MTM Mean	316.82	366.17	329.33	296.43	259.14
Baseline Comparison MTM Mean	276.02	278.77	275.37	275.33	273.83
Intervention Period Comparison MTM Mean	285.38	316.52	287.54	263.79	264.89

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.71: SilverScript/CVS: SNF Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-22.20*****	-1.44	**-12.54*****	**-21.83*****	**-59.35*****
P-value	<0.001	0.693	0.006	<0.001	<0.001
95% Confidence Interval	(-29.3 , -15.1)	(-8.58 , 5.70)	(-21.56 , -3.53)	(-31.28 , -12.37)	(-68.92 , -49.78)
Relative Difference	-5.87%	-0.37%	-3.30%	-5.85%	-16.14%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	378.21	389.38	380.02	373.31	367.79
Intervention Period Enhanced MTM Mean	356.71	418.48	373.60	327.87	292.80
Baseline Comparison MTM Mean	319.63	329.21	321.30	314.99	311.02
Intervention Period Comparison MTM Mean	320.32	359.75	327.42	291.37	295.38

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.72: Humana: SNF Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-35.48***	**-15.59***	**-25.07***	**-43.13***	**-82.22***
P-value	<0.001	0.003	<0.001	<0.001	<0.001
95% Confidence Interval	(-45.23 , -25.73)	(-25.97 , -5.21)	(-38.37 , -11.77)	(-56.79 , -29.48)	(-95.69 , -68.74)
Relative Difference	-10.24%	-4.44%	-7.24%	-12.50%	-24.26%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	346.65	351.31	346.34	345.05	338.91
Intervention Period Enhanced MTM Mean	313.68	378.55	308.37	268.57	232.18
Baseline Comparison MTM Mean	291.35	295.17	291.42	289.58	285.09
Intervention Period Comparison MTM Mean	293.86	338.00	278.52	256.23	260.57

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.73: BCBS NPA: SNF Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**18.89***	**30.35****	25.57	24.65	-9.22
P-value	0.094	0.018	0.128	0.109	0.546
95% Confidence Interval	(-3.23 , 41.01)	(5.17 , 55.54)	(-7.32 , 58.46)	(-5.45 , 54.76)	(-39.12 , 20.69)
Relative Difference	6.83%	10.90%	9.25%	8.93%	-3.36%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	276.46	278.39	276.46	276.19	274.37
Intervention Period Enhanced MTM Mean	316.34	350.67	338.46	308.57	256.72
Baseline Comparison MTM Mean	234.55	235.81	234.16	234.68	233.33
Intervention Period Comparison MTM Mean	255.55	277.74	270.58	242.40	224.90

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.74: UnitedHealth: SNF Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-27.04***	-6.85	**-20.25***	**-24.73***	**-54.63***
P-value	<0.001	0.224	0.004	<0.001	<0.001
95% Confidence Interval	(-36.17 , -17.91)	(-17.87 , 4.18)	(-33.94 , -6.56)	(-36.22 , -13.24)	(-67.24 , -42.02)
Relative Difference	-11.78%	-3.34%	-9.94%	-9.74%	-22.00%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	229.61	204.81	203.71	253.89	248.31
Intervention Period Enhanced MTM Mean	221.58	234.73	207.76	237.01	203.45
Baseline Comparison MTM Mean	189.09	165.64	164.77	210.96	207.84
Intervention Period Comparison MTM Mean	208.10	202.41	189.07	218.81	217.62

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.75: WellCare: SNF Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-9.86	-3.37	6.41	2.33	**-48.02***
P-value	0.143	0.622	0.471	0.812	<0.001
95% Confidence Interval	(-23.06 , 3.33)	(-16.76 , 10.02)	(-11.02 , 23.83)	(-16.87 , 21.53)	(-65.65 , -30.40)
Relative Difference	-3.11%	-1.06%	2.02%	0.73%	-15.21%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	316.98	317.22	316.46	318.51	315.79
Intervention Period Enhanced MTM Mean	340.29	359.54	356.80	339.25	298.94
Baseline Comparison MTM Mean	270.82	267.47	266.22	270.78	280.14
Intervention Period Comparison MTM Mean	303.98	313.15	300.15	289.19	311.32

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.76: BCBS FL: SNF Length of Stay, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-24.13*****	-11.01	**-17.86***	**-29.66*****	**-41.23*****
P-value	0.001	0.178	0.073	0.005	<0.001
95% Confidence Interval	(-38.36 , -9.90)	(-27.01 , 4.99)	(-37.36 , 1.64)	(-50.38 , -8.94)	(-63.52 , -18.95)
Relative Difference	-19.24%	-8.71%	-14.20%	-23.65%	-33.36%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	125.40	126.48	125.82	125.44	123.60
Intervention Period Enhanced MTM Mean	162.99	172.77	169.54	167.40	139.19
Baseline Comparison MTM Mean	118.62	119.55	118.87	118.57	117.29
Intervention Period Comparison MTM Mean	180.35	176.85	180.45	190.19	174.12

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

Emergency Department (ED) Visits

Table B.3.77: Modelwide: ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**1.65***	**0.64***	**1.55***	**1.91***	**2.81***
P-value	<0.001	0.003	<0.001	<0.001	<0.001
95% Confidence Interval	(1.30 , 2.00)	(0.22 , 1.06)	(1.12 , 1.99)	(1.46 , 2.37)	(2.37 , 3.25)
Relative Difference	3.25%	1.27%	3.10%	3.75%	5.50%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	50.68	50.61	50.15	50.96	51.06
Intervention Period Enhanced MTM Mean	47.19	52.15	48.44	48.22	38.06
Baseline Comparison MTM Mean	53.64	53.80	53.02	53.81	53.92
Intervention Period Comparison MTM Mean	48.49	54.70	49.76	49.15	38.10

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.78: SilverScript/CVS: ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**1.71***	**1.07***	**1.42***	**1.72***	**2.81***
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(1.27 , 2.15)	(0.59 , 1.56)	(0.87 , 1.97)	(1.13 , 2.31)	(2.22 , 3.41)
Relative Difference	3.18%	1.95%	2.64%	3.24%	5.38%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	53.66	55.18	53.86	53.01	52.29
Intervention Period Enhanced MTM Mean	50.69	56.65	53.36	51.15	39.76
Baseline Comparison MTM Mean	56.40	58.22	56.56	55.58	54.86
Intervention Period Comparison MTM Mean	51.72	58.61	54.64	52.01	39.51

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.79: Humana: ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**2.56*****	0.35	**3.79*****	**3.51*****	**4.70*****
P-value	<0.001	0.567	<0.001	<0.001	<0.001
95% Confidence Interval	(1.63 , 3.49)	(-0.84 , 1.53)	(2.62 , 4.96)	(2.30 , 4.73)	(3.52 , 5.87)
Relative Difference	4.27%	0.58%	6.32%	5.85%	7.87%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	60.02	60.21	60.00	59.99	59.68
Intervention Period Enhanced MTM Mean	54.06	60.86	54.47	52.26	41.09
Baseline Comparison MTM Mean	65.18	65.69	64.99	64.95	64.57
Intervention Period Comparison MTM Mean	56.65	66.00	55.66	53.71	41.29

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.80: BCBS NPA: ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.42	-0.62	**-1.42****	-0.75	**1.32****
P-value	0.367	0.241	0.014	0.285	0.028
95% Confidence Interval	(-1.35 , 0.50)	(-1.65 , 0.41)	(-2.55 , -0.29)	(-2.13 , 0.63)	(0.14 , 2.50)
Relative Difference	-1.42%	-2.07%	-4.76%	-2.52%	4.43%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	29.82	29.77	29.83	29.86	29.84
Intervention Period Enhanced MTM Mean	33.01	33.44	33.71	34.83	29.72
Baseline Comparison MTM Mean	32.55	32.48	32.51	32.62	32.63
Intervention Period Comparison MTM Mean	36.17	36.77	37.80	38.34	31.19

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.81: UnitedHealth: ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**1.63***	**0.89***	**1.31***	**2.37***	**1.79***
P-value	<0.001	0.062	0.013	<0.001	<0.001
95% Confidence Interval	(0.88 , 2.38)	(-0.04 , 1.82)	(0.28 , 2.35)	(1.43 , 3.32)	(0.81 , 2.76)
Relative Difference	3.71%	2.33%	3.45%	4.81%	3.67%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	43.95	38.04	38.03	49.32	48.66
Intervention Period Enhanced MTM Mean	40.82	39.48	37.12	48.62	36.61
Baseline Comparison MTM Mean	46.50	40.70	40.63	51.80	51.13
Intervention Period Comparison MTM Mean	41.74	41.26	38.40	48.73	37.30

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.82: WellCare: ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**1.48***	**1.70***	**1.49***	0.74	**1.93***
P-value	0.002	0.001	0.012	0.272	0.003
95% Confidence Interval	(0.56 , 2.41)	(0.71 , 2.70)	(0.33 , 2.65)	(-0.58 , 2.06)	(0.65 , 3.21)
Relative Difference	2.50%	2.92%	2.56%	1.26%	3.12%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	59.27	58.36	58.32	58.76	61.97
Intervention Period Enhanced MTM Mean	55.64	60.26	57.87	55.92	47.15
Baseline Comparison MTM Mean	58.60	57.84	57.36	57.78	61.71
Intervention Period Comparison MTM Mean	53.49	58.04	55.42	54.20	44.97

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.83: BCBS FL: ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	0.46	0.46	0.64	0.52	0.19
P-value	0.451	0.515	0.376	0.517	0.803
95% Confidence Interval	(-0.73 , 1.64)	(-0.91 , 1.82)	(-0.77 , 2.04)	(-1.05 , 2.08)	(-1.32 , 1.71)
Relative Difference	1.68%	1.68%	2.34%	1.91%	0.71%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	27.12	27.05	27.12	27.12	27.21
Intervention Period Enhanced MTM Mean	30.03	30.67	31.77	32.29	24.93
Baseline Comparison MTM Mean	28.01	28.05	28.03	28.02	27.92
Intervention Period Comparison MTM Mean	30.46	31.22	32.03	32.67	25.44

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

Outpatient Non-Emergency Department (ED) Visits

Table B.3.84: Modelwide: Outpatient Non-ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**9.05*****	**2.78*****	**12.67*****	**12.72*****	**9.32*****
P-value	<0.001	0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(7.34 , 10.76)	(1.12 , 4.45)	(10.47 , 14.86)	(10.41 , 15.02)	(6.97 , 11.68)
Relative Difference	2.21%	0.69%	3.12%	3.08%	2.26%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	408.52	404.20	406.15	412.35	412.79
Intervention Period Enhanced MTM Mean	436.06	422.34	446.54	462.11	414.32
Baseline Comparison MTM Mean	409.21	406.61	405.67	411.55	414.11
Intervention Period Comparison MTM Mean	427.70	421.97	433.39	448.60	406.32

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.85: SilverScript/CVS: Outpatient Non-ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**2.22****	**3.68*****	**3.45*****	**3.46*****	**-2.36***
P-value	0.010	<0.001	0.001	0.004	0.067
95% Confidence Interval	(0.53 , 3.92)	(2.02 , 5.33)	(1.38 , 5.52)	(1.09 , 5.84)	(-4.89 , 0.17)
Relative Difference	0.54%	0.89%	0.83%	0.84%	-0.57%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	413.60	414.06	413.86	413.63	412.70
Intervention Period Enhanced MTM Mean	430.20	432.09	438.45	447.91	398.82
Baseline Comparison MTM Mean	400.60	401.38	399.15	400.57	401.40
Intervention Period Comparison MTM Mean	414.98	415.73	420.28	431.39	389.88

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.86: Humana: Outpatient Non-ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**19.86***	**-5.39***	**39.34***	**36.36***	**31.07***
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(17.19 , 22.53)	(-7.80 , -2.97)	(35.66 , 43.02)	(32.30 , 40.42)	(26.88 , 35.27)
Relative Difference	5.28%	-1.46%	10.49%	9.54%	7.99%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	375.98	367.85	374.93	381.17	388.83
Intervention Period Enhanced MTM Mean	417.66	379.85	447.13	459.08	415.75
Baseline Comparison MTM Mean	386.82	382.20	383.19	389.42	398.30
Intervention Period Comparison MTM Mean	408.65	399.60	416.05	430.98	394.14

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.87: BCBS NPA: Outpatient Non-ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**48.45***	**38.22***	**43.96***	**53.07***	**61.30***
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(38.58 , 58.33)	(28.56 , 47.88)	(32.32 , 55.6)	(40.54 , 65.60)	(48.50 , 74.11)
Relative Difference	8.75%	6.92%	7.93%	9.57%	11.07%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	553.62	552.32	554.08	554.29	553.97
Intervention Period Enhanced MTM Mean	597.82	588.12	606.60	623.05	572.40
Baseline Comparison MTM Mean	582.25	582.78	582.67	582.29	581.05
Intervention Period Comparison MTM Mean	577.99	580.35	591.23	597.99	538.18

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.88: UnitedHealth: Outpatient Non-ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-8.65***	**-13.03***	**-12.32***	**-5.08**	**-5.31**
P-value	<0.001	<0.001	<0.001	0.021	0.027
95% Confidence Interval	(-12.20 , -5.11)	(-16.81 , -9.26)	(-17.64 , -7.00)	(-9.42 , -0.75)	(-10.01 , -0.62)
Relative Difference	-2.44%	-4.06%	-3.83%	-1.32%	-1.39%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	355.04	321.05	321.61	384.70	382.94
Intervention Period Enhanced MTM Mean	363.27	331.20	337.01	409.48	365.16
Baseline Comparison MTM Mean	355.83	325.12	325.28	381.31	382.75
Intervention Period Comparison MTM Mean	372.71	348.30	353.01	411.18	370.30

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.89: WellCare: Outpatient Non-ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-3.66**	1.57	-1.73	-1.86	**-14.08***
P-value	0.033	0.347	0.430	0.468	<0.001
95% Confidence Interval	(-7.03 , -0.30)	(-1.70 , 4.83)	(-6.03 , 2.57)	(-6.87 , 3.16)	(-18.87 , -9.28)
Relative Difference	-0.87%	0.38%	-0.41%	-0.44%	-3.36%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	419.63	417.86	420.12	421.95	419.02
Intervention Period Enhanced MTM Mean	434.66	435.67	444.79	458.44	398.84
Baseline Comparison MTM Mean	402.01	397.91	397.99	400.11	413.43
Intervention Period Comparison MTM Mean	420.70	414.16	424.40	438.45	407.33

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.90: BCBS FL: Outpatient Non-ED Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-30.97*****	**-25.39*****	**-30.46*****	**-40.22*****	**-28.55*****
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(-38.73 , -23.20)	(-33.03 , -17.76)	(-39.36 , -21.56)	(-50.36 , -30.08)	(-39.08 , -18.02)
Relative Difference	-11.80%	-9.72%	-11.61%	-15.31%	-10.82%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	262.45	261.16	262.39	262.63	263.87
Intervention Period Enhanced MTM Mean	277.44	272.08	281.37	294.07	262.03
Baseline Comparison MTM Mean	289.92	289.47	289.44	289.70	291.24
Intervention Period Comparison MTM Mean	335.88	325.78	338.88	361.36	317.94

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

Evaluation and Management (E&M) Visits

Table B.3.91: Modelwide: E&M Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**7.54*****	**1.90****	**9.57*****	**6.63*****	**13.74*****
P-value	<0.001	0.012	<0.001	<0.001	<0.001
95% Confidence Interval	(5.99 , 9.09)	(0.43 , 3.38)	(7.59 , 11.54)	(4.54 , 8.72)	(11.54 , 15.93)
Relative Difference	1.07%	0.27%	1.36%	0.94%	1.94%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	702.15	694.00	702.02	706.36	708.59
Intervention Period Enhanced MTM Mean	705.42	706.06	729.48	740.39	639.59
Baseline Comparison MTM Mean	714.02	711.55	713.02	715.07	717.32
Intervention Period Comparison MTM Mean	709.75	721.71	730.92	742.47	634.58

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.92: SilverScript/CVS: E&M Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**10.36*****	**3.40*****	**9.76*****	**12.16*****	**17.63*****
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(8.70 , 12.02)	(1.78 , 5.02)	(7.74 , 11.78)	(9.85 , 14.47)	(15.16 , 20.09)
Relative Difference	1.47%	0.49%	1.39%	1.71%	2.46%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	706.03	693.88	703.56	712.70	716.49
Intervention Period Enhanced MTM Mean	709.37	706.73	726.81	747.39	650.53
Baseline Comparison MTM Mean	708.69	703.82	705.32	712.09	714.91
Intervention Period Comparison MTM Mean	701.68	713.27	718.80	734.62	631.33

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.93: Humana: E&M Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**5.92***	**-3.70***	**12.72***	**8.31***	**15.27***
P-value	<0.001	0.006	<0.001	<0.001	<0.001
95% Confidence Interval	(2.98 , 8.86)	(-6.36 , -1.05)	(8.71 , 16.74)	(3.97 , 12.66)	(10.86 , 19.68)
Relative Difference	0.88%	-0.56%	1.90%	1.22%	2.21%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	670.51	657.31	669.92	679.27	689.60
Intervention Period Enhanced MTM Mean	677.07	662.55	706.63	719.15	624.94
Baseline Comparison MTM Mean	694.26	685.99	689.89	699.71	711.26
Intervention Period Comparison MTM Mean	694.90	694.93	713.87	731.27	631.32

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.94: BCBS NPA: E&M Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-26.48***	**-12.97***	**-26.10***	**-38.15***	**-30.99***
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(-31.80 , -21.16)	(-18.29 , -7.65)	(-32.72 , -19.48)	(-45.74 , -30.56)	(-38.1 , -23.88)
Relative Difference	-4.35%	-2.14%	-4.28%	-6.25%	-5.08%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	609.10	606.86	609.81	610.08	610.00
Intervention Period Enhanced MTM Mean	610.79	633.03	635.95	637.08	525.83
Baseline Comparison MTM Mean	642.89	642.12	642.52	643.33	643.81
Intervention Period Comparison MTM Mean	671.06	681.27	694.77	708.47	590.63

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.95: UnitedHealth: E&M Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**30.99*****	**21.21*****	**36.46*****	**26.89*****	**40.34*****
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(25.50 , 36.48)	(15.88 , 26.55)	(28.50 , 44.42)	(20.93 , 32.85)	(33.57 , 47.11)
Relative Difference	3.95%	2.63%	4.50%	3.52%	5.25%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	785.45	806.14	809.71	764.01	768.95
Intervention Period Enhanced MTM Mean	777.42	815.24	828.18	785.47	690.01
Baseline Comparison MTM Mean	804.31	830.60	832.43	778.25	784.30
Intervention Period Comparison MTM Mean	765.29	818.48	814.44	772.82	665.01

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.96: WellCare: E&M Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-5.95*****	**-2.80***	**-4.83****	**-9.39*****	**-7.77*****
P-value	<0.001	0.085	0.021	<0.001	0.001
95% Confidence Interval	(-9.19 , -2.72)	(-5.99 , 0.39)	(-8.92 , -0.74)	(-14.17 , -4.61)	(-12.38 , -3.16)
Relative Difference	-0.84%	-0.40%	-0.68%	-1.32%	-1.11%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	706.98	703.66	711.75	713.37	699.53
Intervention Period Enhanced MTM Mean	695.60	713.79	722.69	729.92	609.20
Baseline Comparison MTM Mean	705.30	705.39	707.24	707.84	700.54
Intervention Period Comparison MTM Mean	699.87	718.32	723.01	733.77	617.98

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.97: BCBS FL: E&M Visits, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**46.09***	**29.61***	**50.32***	**48.05***	**59.16***
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(34.86 , 57.31)	(17.21 , 42.02)	(37.71 , 62.92)	(34.14 , 61.96)	(41.81 , 76.51)
Relative Difference	5.19%	3.34%	5.67%	5.41%	6.66%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	887.75	886.89	888.21	888.34	887.65
Intervention Period Enhanced MTM Mean	895.64	899.65	917.44	935.02	824.89
Baseline Comparison MTM Mean	869.45	871.10	871.15	870.55	864.37
Intervention Period Comparison MTM Mean	831.25	854.25	850.07	869.18	742.45

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

B.3.4 Inpatient Expenditures and Admissions Related to Ambulatory Care-Sensitive Conditions (ACSCs)

This subsection presents additional information and findings of the Model impacts on inpatient expenditures and admissions related to the ACSC Chronic Composite Measure (supplementing Section 3.4) of the main report. There are a total of 14 tables in this subsection. Findings are presented for each measure in turn, first for the Model as a whole and then by individual sponsor, both cumulative and for each Model Year.

There were statistically significant cumulative decreases in inpatient expenditures and inpatient admissions related to ACSCs, which suggest that Enhanced MTM has the potential to affect outcomes related to the management of chronic conditions. Estimated impacts for most individual sponsors were consistent with these Modelwide findings, though the magnitude of impacts varied by sponsor. These findings were qualitatively similar to those reported in the Third Evaluation Report.[12]

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[12] "Evaluation of the Part D Enhanced Medication Therapy Management (MTM) Model: Third Evaluation Report" (August 2021), https://innovation.cms.gov/data-and-reports/2021/mtm-thrdevalrept.

Inpatient Expenditures Related to ACSCs

Table B.3.98: Modelwide: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**- $0.90***	- $0.24	**- $0.96***	**- $1.49***	**- $1.05***
P-value	0.001	0.520	0.009	<0.001	0.005
95% Confidence Interval	(-1.42 , -0.37)	(-0.97 , 0.49)	(-1.69 , -0.24)	(-2.21 , -0.78)	(-1.77 , -0.32)
Relative Difference	-4.55%	-1.22%	-4.95%	-7.58%	-5.24%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$19.67	$19.63	$19.47	$19.70	$19.94
Intervention Period Enhanced MTM Mean	$24.56	$28.97	$24.81	$23.78	$19.27
Baseline Comparison MTM Mean	$19.35	$19.20	$19.00	$19.50	$19.76
Intervention Period Comparison MTM Mean	$25.13	$28.78	$25.30	$25.07	$20.14

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.99: SilverScript/CVS: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**- $0.74****	$0.01	**- $0.97***	**- $1.32***	- $0.75
P-value	0.044	0.980	0.062	0.010	0.144
95% Confidence Interval	(-1.46 , -0.02)	(-0.94 , 0.97)	(-1.99 , 0.05)	(-2.32 , -0.32)	(-1.76 , 0.26)
Relative Difference	-3.67%	0.06%	-4.83%	-6.65%	-3.78%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$20.13	$20.60	$20.13	$19.90	$19.83
Intervention Period Enhanced MTM Mean	$25.81	$29.92	$26.89	$25.28	$20.10
Baseline Comparison MTM Mean	$20.24	$20.70	$20.17	$20.06	$19.97
Intervention Period Comparison MTM Mean	$26.66	$30.01	$27.90	$26.76	$20.99

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.100: Humana: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $1.12	$0.86	- $1.37	**- $3.20***	**- $2.73***
P-value	0.103	0.347	0.142	<0.001	0.009
95% Confidence Interval	(-2.47 , 0.23)	(-0.93 , 2.65)	(-3.19 , 0.46)	(-4.98 , -1.42)	(-4.78 , -0.67)
Relative Difference	-4.39%	3.35%	-5.35%	-12.61%	-10.83%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$25.49	$25.68	$25.52	$25.37	$25.16
Intervention Period Enhanced MTM Mean	$29.84	$37.11	$28.42	$25.70	$20.75
Baseline Comparison MTM Mean	$24.12	$24.18	$24.05	$24.10	$24.13
Intervention Period Comparison MTM Mean	$29.60	$34.75	$28.31	$27.62	$22.45

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.101: BCBS NPA: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**- $1.67***	**- $1.46***	**- $1.41***	**- $2.29***	**- $1.55***
P-value	0.004	0.097	0.061	0.008	0.074
95% Confidence Interval	(-2.81 , -0.53)	(-3.19 , 0.27)	(-2.88 , 0.07)	(-3.98 , -0.60)	(-3.25 , 0.15)
Relative Difference	-18.93%	-16.67%	-15.96%	-25.89%	-17.62%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$8.81	$8.78	$8.82	$8.84	$8.79
Intervention Period Enhanced MTM Mean	$14.14	$15.31	$14.37	$14.49	$12.07
Baseline Comparison MTM Mean	$8.89	$8.85	$8.86	$8.91	$8.94
Intervention Period Comparison MTM Mean	$15.89	$16.84	$15.81	$16.85	$13.77

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.102: UnitedHealth: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $0.42	- $1.32	- $0.67	- $0.24	$0.45
P-value	0.514	0.197	0.510	0.802	0.606
95% Confidence Interval	(-1.69 , 0.85)	(-3.32 , 0.69)	(-2.68 , 1.33)	(-2.12 , 1.64)	(-1.25 , 2.14)
Relative Difference	-2.37%	-8.26%	-4.19%	-1.24%	2.31%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$17.84	$15.95	$16.06	$19.48	$19.32
Intervention Period Enhanced MTM Mean	$22.47	$24.66	$21.47	$24.11	$19.40
Baseline Comparison MTM Mean	$17.91	$15.51	$15.58	$19.98	$19.86
Intervention Period Comparison MTM Mean	$22.97	$25.54	$21.66	$24.86	$19.50

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.103: WellCare: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$0.10	- $0.25	$0.76	$0.50	- $0.59
P-value	0.895	0.807	0.500	0.668	0.615
95% Confidence Interval	(-1.41 , 1.62)	(-2.23 , 1.73)	(-1.46 , 2.99)	(-1.77 , 2.76)	(-2.88 , 1.71)
Relative Difference	0.46%	-1.14%	3.53%	2.29%	-2.42%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$22.27	$21.58	$21.67	$21.66	$24.38
Intervention Period Enhanced MTM Mean	$30.00	$31.59	$31.61	$30.37	$25.85
Baseline Comparison MTM Mean	$21.61	$21.01	$20.97	$21.05	$23.62
Intervention Period Comparison MTM Mean	$29.24	$31.27	$30.15	$29.27	$25.69

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.104: BCBS FL: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $0.67	- $2.47	$0.84	- $0.57	- $0.30
P-value	0.520	0.185	0.528	0.680	0.845
95% Confidence Interval	(-2.72 , 1.38)	(-6.13 , 1.19)	(-1.76 , 3.43)	(-3.28 , 2.14)	(-3.35 , 2.74)
Relative Difference	-5.73%	-21.20%	7.12%	-4.86%	-2.56%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$11.74	$11.66	$11.74	$11.72	$11.86
Intervention Period Enhanced MTM Mean	$18.17	$19.16	$18.57	$18.82	$15.85
Baseline Comparison MTM Mean	$11.41	$11.42	$11.41	$11.39	$11.42
Intervention Period Comparison MTM Mean	$18.51	$21.39	$17.40	$19.06	$15.71

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

Inpatient Admissions Related to ACSCs

Table B.3.105: Modelwide: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**- 0.12***	-0.04	**- 0.16***	**- 0.19***	**- 0.10***
P-value	<0.001	0.289	<0.001	<0.001	0.006
95% Confidence Interval	(-0.17 , -0.07)	(-0.11 , 0.03)	(-0.24 , -0.09)	(-0.26 , -0.12)	(-0.17 , -0.03)
Relative Difference	-4.62%	-1.47%	-6.45%	-7.35%	-3.80%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	2.57	2.57	2.55	2.57	2.60
Intervention Period Enhanced MTM Mean	2.96	3.50	2.98	2.92	2.26
Baseline Comparison MTM Mean	2.51	2.50	2.48	2.53	2.56
Intervention Period Comparison MTM Mean	3.02	3.47	3.08	3.06	2.32

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 72,138,205 (1,571,806 beneficiaries). Number of comparison observations: 142,112,219 (3,423,484 beneficiaries).

Table B.3.106: SilverScript/CVS: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**- 0.11***	-0.03	**- 0.15***	**- 0.19***	-0.08
P-value	0.003	0.582	0.002	<0.001	0.113
95% Confidence Interval	(-0.18 , -0.04)	(-0.12 , 0.06)	(-0.25 , -0.05)	(-0.29 , -0.09)	(-0.17 , 0.02)
Relative Difference	-4.19%	-0.95%	-5.67%	-7.42%	-3.00%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	2.63	2.69	2.64	2.61	2.59
Intervention Period Enhanced MTM Mean	3.10	3.61	3.23	3.08	2.33
Baseline Comparison MTM Mean	2.63	2.69	2.62	2.61	2.59
Intervention Period Comparison MTM Mean	3.21	3.63	3.37	3.27	2.41

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,619,741 (636,560 beneficiaries). Number of comparison observations: 70,693,471 (1,659,592 beneficiaries).

Table B.3.107: Humana: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**- 0.12***	0.10	**- 0.24***	**- 0.34***	**- 0.20**
P-value	0.059	0.216	0.005	<0.001	0.015
95% Confidence Interval	(-0.25 , 0)	(-0.06 , 0.26)	(-0.41 , -0.07)	(-0.51 , -0.17)	(-0.37 , -0.04)
Relative Difference	-3.73%	3.08%	-7.46%	-10.47%	-6.32%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	3.27	3.29	3.27	3.25	3.24
Intervention Period Enhanced MTM Mean	3.51	4.36	3.29	3.10	2.42
Baseline Comparison MTM Mean	3.10	3.11	3.09	3.10	3.11
Intervention Period Comparison MTM Mean	3.47	4.08	3.36	3.29	2.50

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,380,067 (365,492 beneficiaries). Number of comparison observations: 34,199,179 (859,525 beneficiaries).

Table B.3.108: BCBS NPA: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**- 0.19***	**- 0.17***	**- 0.17***	**- 0.26**	**- 0.16***
P-value	0.004	0.052	0.070	0.014	0.091
95% Confidence Interval	(-0.32 , -0.06)	(-0.34 , 0.00)	(-0.35 , 0.01)	(-0.47 , -0.05)	(-0.35 , 0.03)
Relative Difference	-14.78%	-13.46%	-12.91%	-20.15%	-12.79%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	1.28	1.28	1.28	1.29	1.28
Intervention Period Enhanced MTM Mean	1.93	2.07	1.97	2.02	1.58
Baseline Comparison MTM Mean	1.23	1.23	1.23	1.23	1.24
Intervention Period Comparison MTM Mean	2.06	2.20	2.08	2.23	1.70

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 9,367,286 (175,897 beneficiaries). Number of comparison observations: 14,353,419 (294,875 beneficiaries).

Table B.3.109: UnitedHealth: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.03	-0.11	-0.06	0.00	0.03
P-value	0.612	0.291	0.545	0.981	0.742
95% Confidence Interval	(-0.16 , 0.10)	(-0.33 , 0.10)	(-0.26 , 0.14)	(-0.17 , 0.17)	(-0.14 , 0.19)
Relative Difference	-1.46%	-5.38%	-2.92%	0.08%	1.11%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	2.33	2.12	2.13	2.50	2.49
Intervention Period Enhanced MTM Mean	2.67	3.00	2.58	2.88	2.20
Baseline Comparison MTM Mean	2.33	2.09	2.10	2.54	2.53
Intervention Period Comparison MTM Mean	2.71	3.08	2.61	2.91	2.22

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 8,840,563 (203,738 beneficiaries). Number of comparison observations: 20,818,919 (556,100 beneficiaries).

Table B.3.110: WellCare: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.02	-0.07	-0.08	0.07	0.03
P-value	0.831	0.466	0.466	0.547	0.766
95% Confidence Interval	(-0.16 , 0.13)	(-0.25 , 0.12)	(-0.28 , 0.13)	(-0.16 , 0.29)	(-0.18 , 0.24)
Relative Difference	-0.56%	-2.43%	-2.69%	2.44%	1.04%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	2.88	2.81	2.82	2.83	3.08
Intervention Period Enhanced MTM Mean	3.55	3.79	3.65	3.68	3.00
Baseline Comparison MTM Mean	2.80	2.72	2.72	2.73	3.03
Intervention Period Comparison MTM Mean	3.48	3.77	3.62	3.51	2.92

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 5,799,644 (130,796 beneficiaries). Number of comparison observations: 20,094,613 (526,729 beneficiaries).

Table B.3.111: BCBS FL: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**- 0.23***	-0.29	-0.13	-0.28	-0.20
P-value	0.098	0.140	0.429	0.224	0.368
95% Confidence Interval	(-0.49 , 0.04)	(-0.67 , 0.10)	(-0.46 , 0.20)	(-0.72 , 0.17)	(-0.64 , 0.24)
Relative Difference	-14.01%	-17.98%	-8.28%	-17.14%	-12.42%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	1.61	1.61	1.61	1.61	1.62
Intervention Period Enhanced MTM Mean	2.25	2.36	2.27	2.42	1.90
Baseline Comparison MTM Mean	1.49	1.49	1.49	1.48	1.49
Intervention Period Comparison MTM Mean	2.35	2.53	2.28	2.57	1.97

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 3,130,904 (59,323 beneficiaries). Number of comparison observations: 5,095,022 (107,922 beneficiaries).

B.4   Supplementary Findings on Model Impacts: Enrollees with Low-income Subsidy Status

This section presents additional information and Modelwide findings on the estimated impacts of Enhanced MTM for enrollees with low-income subsidy (LIS) status presented in Section 4.3 of the main report, including findings not reported in the body of the report.

Appendix Sections B.4.1 and B.4.2 present setting-specific Medicare expenditures (five tables) and health service utilization (eight tables), respectively. Appendix Section B.4.3 presents inpatient expenditures and admissions related to the ACSC Chronic Composite Measure (two tables, one for each measure).

B.4.1 Setting-specific Medicare Expenditures

This subsection presents the Model impacts on Medicare expenditures by service delivery setting (supplementing Section 4.3 of the main report) for beneficiaries included in the LIS subgroup. Findings are presented for the cumulative time period and for each Model Year separately in the following five tables. There were statistically significant decreases in expenditures for hospital inpatient services and institutional post-acute care, and increases in expenditures for emergency department and outpatient non-emergency services. These findings are similar to findings for all beneficiaries enrolled in Model-participating plans.

Table B.4.1: Expenditures for Inpatient Services, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**-$4.34***	- $0.17	- $3.28	**-$11.18*****	- $5.43
P-value	0.051	0.952	0.290	0.001	0.114
95% Confidence Interval	(-8.71, 0.02)	(-5.61, 5.27)	(-9.36, 2.79)	(-17.76, -4.60)	(-12.17, 1.30)
Relative Difference	-1.20%	-0.05%	-0.91%	-3.11%	-1.51%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$360.56	$361.11	$361.57	$359.27	$359.75
Intervention Period Enhanced MTM Mean	$421.36	$434.72	$422.80	$415.48	$401.50
Baseline Comparison MTM Mean	$343.44	$343.37	$343.35	$342.81	$344.43
Intervention Period Comparison MTM Mean	$408.58	$417.15	$407.86	$410.21	$391.62

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

Table B.4.2: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**-$4.32*****	- $3.12	- $2.77	- $3.37	**-$9.72*****
P-value	0.009	0.124	0.212	0.129	<0.001
95% Confidence Interval	(-7.55, -1.10)	(-7.10, 0.86)	(-7.11, 1.58)	(-7.73, 0.98)	(-14.66, -4.77)
Relative Difference	-2.57%	-1.87%	-1.63%	-2.00%	-5.77%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$168.24	$167.34	$169.39	$168.24	$168.45
Intervention Period Enhanced MTM Mean	$192.25	$190.04	$184.69	$182.19	$218.07
Baseline Comparison MTM Mean	$171.65	$172.08	$173.29	$170.46	$170.11
Intervention Period Comparison MTM Mean	$199.98	$197.90	$191.36	$187.78	$229.44

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

Table B.4.3: Expenditures for Emergency Department, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.74***	**$1.11***	**$2.09***	**$1.79***	**$2.42***
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(1.34, 2.14)	(0.59, 1.64)	(1.55, 2.64)	(1.23, 2.34)	(1.86, 2.98)
Relative Difference	3.98%	2.56%	4.79%	4.05%	5.46%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$43.86	$43.55	$43.67	$44.13	$44.34
Intervention Period Enhanced MTM Mean	$45.32	$46.86	$47.45	$47.11	$37.55
Baseline Comparison MTM Mean	$45.51	$45.32	$45.32	$45.66	$45.91
Intervention Period Comparison MTM Mean	$45.22	$47.52	$47.01	$46.86	$36.69

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

Table B.4.4: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$2.14***	$1.10	**$3.64***	**$4.00***	- $0.08
P-value	0.001	0.130	<0.001	<0.001	0.930
95% Confidence Interval	(0.85, 3.43)	(-0.33, 2.53)	(1.95, 5.34)	(2.26, 5.74)	(-1.89, 1.72)
Relative Difference	1.10%	0.57%	1.86%	2.04%	-0.04%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$195.24	$194.85	$195.48	$195.66	$195.16
Intervention Period Enhanced MTM Mean	$198.05	$197.32	$205.52	$207.51	$178.52
Baseline Comparison MTM Mean	$191.53	$190.89	$190.95	$192.19	$192.69
Intervention Period Comparison MTM Mean	$192.20	$192.26	$197.34	$200.04	$176.14

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

Table B.4.5: Expenditures for Ancillary Services, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$0.21	**-$0.87****	- $0.05	- $0.05	**$2.87*****
P-value	0.535	0.013	0.906	0.927	<0.001
95% Confidence Interval	(-0.45, 0.87)	(-1.56, -0.19)	(-0.94, 0.83)	(-1.01, 0.92)	(1.83, 3.91)
Relative Difference	0.22%	-0.91%	-0.06%	-0.05%	2.99%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$96.09	$96.08	$96.26	$96.07	$95.91
Intervention Period Enhanced MTM Mean	$98.67	$95.47	$101.20	$102.23	$97.17
Baseline Comparison MTM Mean	$101.53	$101.47	$101.44	$101.55	$101.70
Intervention Period Comparison MTM Mean	$103.90	$101.74	$106.43	$107.76	$100.09

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

B.4.2 Health Service Utilization

This subsection presents the Model impacts on health service utilization (supplementing Section 4.3 of the main report) for beneficiaries included in the LIS subgroup. Findings are presented both cumulatively and by Model Year in the following eight tables. Similar to findings for all beneficiaries enrolled in Model-participating plans, estimated impacts on utilization of related health services were mostly aligned with the impacts on gross expenditures, and showed decreases in utilization of some services related to inpatient or institutional post-acute care.

Table B.4.6: Inpatient Admissions, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	0.10	**0.57*****	0.02	-0.35	-0.14
P-value	0.547	0.003	0.925	0.131	0.570
95% Confidence Interval	(-0.23, 0.43)	(0.19, 0.94)	(-0.43, 0.47)	(-0.81, 0.10)	(-0.61, 0.33)
Relative Difference	0.29%	1.63%	0.06%	-1.01%	-0.39%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	34.85	34.91	34.98	34.73	34.70
Intervention Period Enhanced MTM Mean	38.08	40.14	38.77	37.82	33.68
Baseline Comparison MTM Mean	33.17	33.19	33.20	33.07	33.20
Intervention Period Comparison MTM Mean	36.31	37.86	36.97	36.51	32.31

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

Table B.4.7: Inpatient Length of Stay, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**3.99****	**5.19*****	2.86	0.98	**6.76*****
P-value	0.012	0.004	0.194	0.665	0.004
95% Confidence Interval	(0.88, 7.09)	(1.70, 8.68)	(-1.46, 7.18)	(-3.46, 5.43)	(2.11, 11.40)
Relative Difference	1.59%	2.06%	1.13%	0.39%	2.70%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	251.28	251.57	252.10	250.63	250.46
Intervention Period Enhanced MTM Mean	284.32	295.04	286.81	280.62	265.48
Baseline Comparison MTM Mean	239.14	239.00	238.95	238.89	239.95
Intervention Period Comparison MTM Mean	268.19	277.27	270.80	267.90	248.21

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

Table B.4.8: Rate of Hospital Readmissions, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	**-5.49*****	-1.73	**-6.01*****	**-8.84*****	**-8.62*****
P-value	<0.001	0.300	0.003	<0.001	<0.001
95% Confidence Interval	(-8.35, -2.63)	(-5.01, 1.55)	(-9.95, -2.07)	(-12.97, -4.70)	(-13.16, -4.08)
Relative Difference	-3.08%	-0.97%	-3.37%	-4.99%	-4.88%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	177.93	178.67	178.40	177.08	176.72
Intervention Period Enhanced MTM Rate	199.50	203.89	198.69	197.07	194.13
Baseline Comparison MTM Rate	167.12	167.00	167.07	166.97	167.66
Intervention Period Comparison MTM Rate	194.17	193.96	193.38	195.79	193.68

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 931,402 (329,156 beneficiaries). Number of comparison observations: 1,834,582 (682,448 beneficiaries).

Table B.4.9: Skilled Nursing Facility Admissions, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.30*****	-0.04	**-0.21****	**-0.43*****	**-0.75*****
P-value	<0.001	0.655	0.026	<0.001	<0.001
95% Confidence Interval	(-0.44, -0.16)	(-0.21, 0.13)	(-0.40, -0.03)	(-0.62, -0.24)	(-0.96, -0.53)
Relative Difference	-3.92%	-0.51%	-2.79%	-5.59%	-9.70%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	7.66	7.59	7.70	7.67	7.71
Intervention Period Enhanced MTM Mean	9.06	9.13	8.91	8.38	9.92
Baseline Comparison MTM Mean	7.03	7.00	7.06	7.02	7.03
Intervention Period Comparison MTM Mean	8.73	8.57	8.49	8.16	10.00

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

Table B.4.10: Skilled Nursing Facility Length of Stay, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-31.66***	**-10.11***	**-10.55***	**-32.79***	**-97.93***
P-value	<0.001	0.019	0.081	<0.001	<0.001
95% Confidence Interval	(-40.11, -23.21)	(-18.54, -1.68)	(-22.41, 1.31)	(-44.80, -20.78)	(-110.38, -85.48)
Relative Difference	-5.88%	-1.88%	-1.94%	-6.08%	-18.40%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	538.50	538.03	543.64	539.02	532.10
Intervention Period Enhanced MTM Mean	511.72	562.89	538.98	469.50	430.78
Baseline Comparison MTM Mean	443.43	441.96	447.65	443.40	440.72
Intervention Period Comparison MTM Mean	448.30	476.93	453.54	406.66	437.34

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

Table B.4.11: Emergency Department Visits, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**2.90***	**1.05***	**3.47***	**3.63***	**4.73***
P-value	<0.001	0.013	<0.001	<0.001	<0.001
95% Confidence Interval	(2.24, 3.55)	(0.22, 1.87)	(2.63, 4.32)	(2.74, 4.51)	(3.81, 5.65)
Relative Difference	3.82%	1.39%	4.60%	4.74%	6.17%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	75.86	75.29	75.46	76.46	76.71
Intervention Period Enhanced MTM Mean	73.20	76.40	76.17	75.58	60.56
Baseline Comparison MTM Mean	79.87	79.54	79.46	80.29	80.51
Intervention Period Comparison MTM Mean	74.31	79.60	76.70	75.78	59.63

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

Table B.4.12: Outpatient Non-ED Visits, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**11.85***	-1.06	**23.69***	**21.81***	**8.79***
P-value	<0.001	0.235	<0.001	<0.001	<0.001
95% Confidence Interval	(9.90, 13.80)	(-2.80, 0.69)	(21.05, 26.33)	(18.92, 24.69)	(5.68, 11.91)
Relative Difference	2.67%	-0.24%	5.37%	4.84%	1.96%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	443.90	438.85	440.88	450.41	449.55
Intervention Period Enhanced MTM Mean	477.77	452.25	499.04	512.68	456.50
Baseline Comparison MTM Mean	437.39	432.08	432.94	442.69	446.79
Intervention Period Comparison MTM Mean	459.41	446.54	467.41	483.15	444.95

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

Table B.4.13: Evaluation and Management Visits, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**2.13***	**-3.27***	**7.24***	2.02	**5.71***
P-value	0.053	0.001	<0.001	0.189	0.001
95% Confidence Interval	(-0.03, 4.29)	(-5.18, -1.36)	(4.36, 10.12)	(-1.00, 5.05)	(2.48, 8.93)
Relative Difference	0.32%	-0.48%	1.07%	0.30%	0.85%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	674.41	675.62	677.34	673.07	669.93
Intervention Period Enhanced MTM Mean	659.84	674.07	687.81	679.76	573.44
Baseline Comparison MTM Mean	701.05	703.29	702.43	698.62	697.94
Intervention Period Comparison MTM Mean	684.34	705.01	705.66	703.29	595.75

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

B.4.3 Inpatient Expenditures and Admissions Related to Ambulatory Care-Sensitive Conditions (ACSCs)

This subsection presents additional information and findings of the Model impacts on inpatient expenditures and admissions related to the ACSC Chronic Composite Measure (supplementing Section 4.3 of the main report) for beneficiaries included in the LIS subgroup. Findings are presented for the Model as a whole, both cumulative and for each Model Year in the two tables below. Cumulatively across all four Model Years, there was a significant cumulative decrease in inpatient admissions related to ACSCs and a non-significant decrease in inpatient expenditures related to ACSCs. These findings are consistent with findings for all beneficiaries enrolled in Model-participating plans.

Table B.4.14: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $0.60	$0.96	- $0.74	**-$1.92***	**-$1.75**
P-value	0.230	0.139	0.308	0.008	0.019
95% Confidence Interval	(-1.57, 0.38)	(-0.31, 2.24)	(-2.16, 0.68)	(-3.34, -0.50)	(-3.21, -0.29)
Relative Difference	-1.94%	3.15%	-2.40%	-6.27%	-5.63%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$30.76	$30.65	$30.74	$30.65	$31.10
Intervention Period Enhanced MTM Mean	$38.98	$43.52	$39.76	$37.76	$30.97
Baseline Comparison MTM Mean	$29.32	$28.97	$29.01	$29.57	$30.08
Intervention Period Comparison MTM Mean	$38.14	$40.87	$38.77	$38.60	$31.69

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

Table B.4.15: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year, Modelwide (LIS Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.14***	0.05	**-0.21***	**-0.29***	**-0.20***
P-value	0.005	0.415	0.002	<0.001	0.003
95% Confidence Interval	(-0.23, -0.04)	(-0.07, 0.17)	(-0.34, -0.07)	(-0.43, -0.16)	(-0.34, -0.07)
Relative Difference	-3.45%	1.24%	-5.25%	-7.47%	-5.13%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	3.94	3.93	3.94	3.92	3.96
Intervention Period Enhanced MTM Mean	4.56	5.14	4.64	4.47	3.49
Baseline Comparison MTM Mean	3.74	3.71	3.72	3.75	3.81
Intervention Period Comparison MTM Mean	4.50	4.87	4.62	4.59	3.55

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 30,740,379 (764,117 beneficiaries). Number of comparison observations: 64,653,370 (1,687,453 beneficiaries).

B.5 Supplementary Findings on Model Impacts: Enrollees with 1+ Chronic Conditions

This section presents Modelwide findings on the estimated impacts of Enhanced MTM for enrollees with one or more chronic conditions. Findings included in this section were not reported in the body of the report.

- Appendix Section B.5.1 presents Model impacts on gross Medicare Parts A and B expenditures (one table).

- Appendix Sections B.5.2 and B.5.3 present setting-specific Medicare expenditures (five tables) and health service utilization (eight tables), respectively.

- Appendix Section B.5.4 presents inpatient expenditures and admissions related to the ACSC Chronic Composite Measure (two tables).

B.5.1 Gross Medicare Parts A and B Expenditures

This subsection presents Model impacts on gross Medicare Parts A and B expenditures for beneficiaries with one or more chronic conditions. Findings are presented for the cumulative time period and for each Model Year in the table below. Estimated decreases in Medicare Parts A and B expenditures were small and not statistically significant cumulatively or in any of the four Model Years.

Table B.5.1: Parts A and B Expenditures, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $2.61	- $7.17	- $1.33	$1.20	- $1.81
P-value	0.503	0.132	0.793	0.824	0.760
95% Confidence Interval	(-10.25, 5.03)	(-16.50, 2.15)	(-11.24, 8.59)	(-9.37, 11.77)	(-13.42, 9.80)
Relative Difference	-0.22%	-0.61%	-0.11%	0.10%	-0.15%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$1,181.51	$1,182.61	$1,176.58	$1,181.71	$1,185.69
Intervention Period Enhanced MTM Mean	$1,271.92	$1,288.39	$1,270.55	$1,291.39	$1,227.68
Baseline Comparison MTM Mean	$1,206.53	$1,209.93	$1,199.59	$1,206.08	$1,210.49
Intervention Period Comparison MTM Mean	$1,299.54	$1,322.88	$1,294.89	$1,314.56	$1,254.29

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

B.5.2 Setting-specific Medicare Expenditures

This subsection presents the Model impacts on Medicare expenditures by service delivery setting for beneficiaries with one or more chronic conditions. Findings are presented for the cumulative time period and for each Model Year separately in five tables. There were statistically significant decreases in expenditures for hospital inpatient services and institutional post-acute care, and increases in expenditures for emergency department, outpatient non-emergency, and ancillary services. These findings are similar to findings for all beneficiaries enrolled in Model-participating plans.

Table B.5.2: Expenditures for Inpatient Services, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**-$7.76***	**-$5.17**	**-$8.40***	**-$9.27***	**-$9.05***
P-value	<0.001	0.044	0.002	0.001	0.002
95% Confidence Interval	(-11.71, -3.81)	(-10.21, -0.13)	(-13.80, -3.00)	(-14.78, -3.75)	(-14.64, -3.46)
Relative Difference	-2.10%	-1.39%	-2.28%	-2.51%	-2.45%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$369.59	$371.84	$368.21	$368.69	$369.00
Intervention Period Enhanced MTM Mean	$395.60	$426.02	$393.13	$389.47	$361.23
Baseline Comparison MTM Mean	$361.67	$362.87	$359.32	$361.54	$362.91
Intervention Period Comparison MTM Mean	$395.44	$422.23	$392.63	$391.59	$364.19

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

Table B.5.3: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**-$5.43***	**-$5.66**	**-$4.48**	- $2.93	**-$9.08***
P-value	0.001	0.019	0.032	0.158	0.001
95% Confidence Interval	(-8.71, -2.16)	(-10.41, -0.92)	(-8.57, -0.39)	(-7.00, 1.14)	(-14.60, -3.56)
Relative Difference	-3.29%	-3.40%	-2.72%	-1.78%	-5.54%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$165.16	$166.52	$165.01	$164.67	$163.93
Intervention Period Enhanced MTM Mean	$177.75	$185.81	$172.45	$170.94	$180.11
Baseline Comparison MTM Mean	$174.24	$176.79	$173.97	$172.98	$172.27
Intervention Period Comparison MTM Mean	$192.26	$201.75	$185.90	$182.19	$197.53

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

Table B.5.4: Expenditures for Emergency Department, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.35*****	**$0.94*****	**$1.28*****	**$1.46*****	**$1.93*****
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(1.04, 1.66)	(0.57, 1.31)	(0.86, 1.69)	(1.04, 1.88)	(1.53, 2.33)
Relative Difference	3.53%	2.44%	3.37%	3.80%	5.01%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$38.31	$38.37	$37.91	$38.43	$38.55
Intervention Period Enhanced MTM Mean	$37.15	$40.48	$38.29	$38.28	$29.68
Baseline Comparison MTM Mean	$40.08	$40.26	$39.67	$40.14	$40.25
Intervention Period Comparison MTM Mean	$37.58	$41.43	$38.76	$38.53	$29.44

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

Table B.5.5: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$3.51*****	**$2.37*****	**$4.09*****	**$3.97*****	**$3.95*****
P-value	<0.001	0.003	<0.001	<0.001	<0.001
95% Confidence Interval	(2.12, 4.89)	(0.79, 3.94)	(2.31, 5.87)	(2.05, 5.89)	(2.02, 5.88)
Relative Difference	1.39%	0.95%	1.63%	1.56%	1.54%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$252.23	$249.01	$251.11	$254.24	$255.99
Intervention Period Enhanced MTM Mean	$255.78	$249.57	$260.89	$270.57	$241.97
Baseline Comparison MTM Mean	$247.42	$244.82	$245.65	$249.27	$251.27
Intervention Period Comparison MTM Mean	$247.47	$243.02	$251.35	$261.63	$233.30

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

Table B.5.6: Expenditures for Ancillary Services, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.87***	$0.21	**$1.50***	**$2.37***	**$4.18***
P-value	<0.001	0.532	<0.001	<0.001	<0.001
95% Confidence Interval	(1.27, 2.47)	(-0.44, 0.86)	(0.71, 2.29)	(1.51, 3.22)	(3.25, 5.10)
Relative Difference	1.61%	0.18%	1.30%	2.03%	3.57%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$115.99	$115.16	$115.58	$116.54	$117.08
Intervention Period Enhanced MTM Mean	$116.37	$112.71	$117.37	$120.78	$115.49
Baseline Comparison MTM Mean	$118.15	$117.86	$117.58	$118.44	$118.92
Intervention Period Comparison MTM Mean	$116.65	$115.20	$117.87	$120.32	$113.15

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

B.5.3 Health Service Utilization

This subsection presents the Model impacts on health service utilization for beneficiaries with one or more chronic conditions. Findings are presented both cumulatively and by Model Year in the following eight tables. Similar to findings for all beneficiaries enrolled in Model-participating plans, estimated impacts on utilization of related health services were mostly aligned with the impacts on gross expenditures, and showed decreases in utilization of some services related to inpatient or institutional post-acute care.

Table B.5.7: Inpatient Admissions, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.21	0.13	**-0.39****	**-0.43****	-0.23
P-value	0.145	0.453	0.043	0.025	0.229
95% Confidence Interval	(-0.48, 0.07)	(-0.22, 0.48)	(-0.77, -0.01)	(-0.80, -0.05)	(-0.61, 0.15)
Relative Difference	-0.61%	0.39%	-1.15%	-1.26%	-0.69%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	33.91	34.15	33.79	33.82	33.79
Intervention Period Enhanced MTM Mean	34.79	38.18	35.13	34.54	29.73
Baseline Comparison MTM Mean	33.12	33.30	32.91	33.08	33.15
Intervention Period Comparison MTM Mean	34.21	37.20	34.64	34.23	29.33

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

Table B.5.8: Inpatient Length of Stay, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	0.46	**3.16****	-1.41	-0.84	0.29
P-value	0.695	0.029	0.375	0.597	0.859
95% Confidence Interval	(-1.85, 2.78)	(0.33, 5.98)	(-4.54, 1.71)	(-3.96, 2.28)	(-2.94, 3.53)
Relative Difference	0.21%	1.41%	-0.64%	-0.38%	0.13%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	220.82	223.21	219.89	219.86	219.56
Intervention Period Enhanced MTM Mean	232.12	257.12	231.53	225.33	204.11
Baseline Comparison MTM Mean	215.99	217.91	214.33	215.49	215.76
Intervention Period Comparison MTM Mean	226.83	248.66	227.39	221.80	200.02

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

Table B.5.9: Rate of Hospital Readmissions, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	**-4.79***	**-2.68**	**-5.40***	**-5.96***	**-6.27***
P-value	<0.001	0.050	<0.001	<0.001	<0.001
95% Confidence Interval	(-7.02, -2.56)	(-5.35, -0.00)	(-8.43, -2.38)	(-9.07, -2.86)	(-9.61, -2.92)
Relative Difference	-3.20%	-1.78%	-3.61%	-3.99%	-4.20%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	149.77	150.32	149.82	149.32	149.29
Intervention Period Enhanced MTM Rate	178.02	179.67	177.29	177.50	176.73
Baseline Comparison MTM Rate	144.76	144.53	144.51	144.92	145.36
Intervention Period Comparison MTM Rate	177.80	176.55	177.38	179.06	179.07

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 1,427,371 (547,101 beneficiaries). Number of comparison observations: 2,177,355 (848,347 beneficiaries).

Table B.5.10: Skilled Nursing Facility Admissions, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.15**	0.02	-0.10	**-0.17***	**-0.44***
P-value	0.027	0.825	0.281	0.066	<0.001
95% Confidence Interval	(-0.28, -0.02)	(-0.15, 0.19)	(-0.28, 0.08)	(-0.34, 0.01)	(-0.63, -0.25)
Relative Difference	-1.90%	0.24%	-1.28%	-2.11%	-5.58%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	7.87	7.92	7.86	7.85	7.83
Intervention Period Enhanced MTM Mean	8.82	9.44	8.84	8.49	8.26
Baseline Comparison MTM Mean	7.40	7.46	7.37	7.39	7.37
Intervention Period Comparison MTM Mean	8.50	8.95	8.46	8.20	8.24

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

Table B.5.11: Skilled Nursing Facility Length of Stay, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-25.69***	-3.92	**-13.15***	**-26.97***	**-71.16***
P-value	<0.001	0.297	0.008	<0.001	<0.001
95% Confidence Interval	(-32.65, -18.72)	(-11.27, 3.44)	(-22.88, -3.41)	(-36.64, -17.30)	(-80.98, -61.34)
Relative Difference	-5.63%	-0.84%	-2.88%	-5.94%	-15.92%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	456.38	464.87	456.01	454.07	447.06
Intervention Period Enhanced MTM Mean	418.15	498.21	434.58	382.23	322.17
Baseline Comparison MTM Mean	383.09	389.18	382.08	381.19	377.60
Intervention Period Comparison MTM Mean	370.55	426.43	373.80	336.31	323.87

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

Table B.5.12: Emergency Department Visits, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**1.77***	**0.46***	**1.91***	**2.24***	**2.98***
P-value	<0.001	0.095	<0.001	<0.001	<0.001
95% Confidence Interval	(1.29, 2.25)	(-0.08, 1.01)	(1.30, 2.52)	(1.60, 2.87)	(2.36, 3.60)
Relative Difference	2.92%	0.76%	3.18%	3.67%	4.89%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	60.74	60.95	60.11	60.94	60.96
Intervention Period Enhanced MTM Mean	54.67	60.99	56.06	55.40	42.98
Baseline Comparison MTM Mean	63.57	63.97	62.88	63.67	63.69
Intervention Period Comparison MTM Mean	55.73	63.55	56.92	55.89	42.73

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

Table B.5.13: Outpatient Non-ED Visits, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**9.26***	**2.66****	**12.69***	**13.78***	**9.59***
P-value	<0.001	0.039	<0.001	<0.001	<0.001
95% Confidence Interval	(6.89, 11.63)	(0.14, 5.18)	(9.76, 15.63)	(10.61, 16.95)	(6.31, 12.88)
Relative Difference	1.85%	0.54%	2.55%	2.73%	1.90%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	500.37	496.58	497.14	504.53	505.13
Intervention Period Enhanced MTM Mean	513.55	506.16	524.44	540.07	481.20
Baseline Comparison MTM Mean	496.52	493.84	491.90	499.42	502.76
Intervention Period Comparison MTM Mean	500.44	500.75	506.51	521.18	469.24

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

Table B.5.14: Evaluation and Management Visits, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**8.77***	**2.03****	**10.92***	**9.02***	**15.67***
P-value	<0.001	0.049	<0.001	<0.001	<0.001
95% Confidence Interval	(6.66, 10.87)	(0.00, 4.06)	(8.27, 13.57)	(6.12, 11.92)	(12.59, 18.75)
Relative Difference	1.03%	0.24%	1.29%	1.06%	1.83%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	848.35	840.43	847.82	852.77	855.56
Intervention Period Enhanced MTM Mean	829.58	836.02	853.52	865.75	750.40
Baseline Comparison MTM Mean	851.01	847.93	849.54	852.64	855.44
Intervention Period Comparison MTM Mean	823.48	841.50	844.32	856.60	734.62

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

B.5.4 Inpatient Expenditures and Admissions Related to Ambulatory Care-Sensitive Conditions (ACSCs)

This subsection presents additional information and findings of the Model impacts on inpatient expenditures and admissions related to the ACSC Chronic Composite Measure for beneficiaries with one or more chronic conditions. Findings are presented for the Model as a whole, both cumulative and for each Model Year in the two tables below. Cumulatively across all four Model Years, there were significant cumulative decreases in inpatient expenditures and inpatient admissions related to ACSCs. These findings are similar to findings for all beneficiaries enrolled in Model-participating plans.

Table B.5.15: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**-$1.18***	- $0.36	**-$1.22****	**-$2.09***	**-$1.30****
P-value	0.003	0.521	0.030	<0.001	0.022
95% Confidence Interval	(-1.97, -0.39)	(-1.47, 0.75)	(-2.33, -0.12)	(-3.19, -1.00)	(-2.41, -0.19)
Relative Difference	-4.15%	-1.27%	-4.35%	-7.35%	-4.52%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$28.46	$28.57	$28.13	$28.43	$28.74
Intervention Period Enhanced MTM Mean	$34.83	$41.15	$35.06	$33.40	$26.96
Baseline Comparison MTM Mean	$27.52	$27.42	$27.00	$27.71	$28.06
Intervention Period Comparison MTM Mean	$35.06	$40.36	$35.16	$34.77	$27.58

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

Table B.5.16: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year, Modelwide (1+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.17***	-0.07	**-0.22***	**-0.28***	**-0.14****
P-value	<0.001	0.225	<0.001	<0.001	0.010
95% Confidence Interval	(-0.25, -0.09)	(-0.17, 0.04)	(-0.33, -0.11)	(-0.39, -0.16)	(-0.25, -0.03)
Relative Difference	-4.57%	-1.75%	-5.98%	-7.43%	-3.80%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	3.71	3.73	3.68	3.71	3.73
Intervention Period Enhanced MTM Mean	4.18	4.94	4.19	4.09	3.13
Baseline Comparison MTM Mean	3.57	3.57	3.52	3.58	3.62
Intervention Period Comparison MTM Mean	4.20	4.84	4.24	4.24	3.16

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 47,231,205 (1,068,244 beneficiaries). Number of comparison observations: 71,379,672 (1,739,531 beneficiaries).

B.6 Supplementary Findings on Model Impacts: Enrollees with 2+ Chronic Conditions

This section presents additional information and Modelwide findings on the estimated impacts of Enhanced MTM for enrollees with two or more chronic conditions presented in Section 5.2 of the main report, including findings not reported in the body of the report.

Appendix Sections B.6.1 and B.6.2 present setting-specific Medicare expenditures (five tables) and health service utilization (eight tables), respectively. Appendix Section B.6.3 presents inpatient expenditures and admissions related to the ACSC Chronic Composite Measure (two tables, one for each measure).

B.6.1 Setting-specific Medicare Expenditures

This subsection presents the Model impacts on Medicare expenditures by service delivery setting (supplementing Section 5.2 of the main report) for beneficiaries with two or more chronic conditions. Findings are presented for the cumulative time period and for each Model Year separately in the following five tables. There were statistically significant decreases in expenditures for hospital inpatient services and institutional post-acute care, and increases in expenditures for emergency department, outpatient non-emergency, and ancillary services. These findings are similar to findings for all beneficiaries enrolled in Model-participating plans.

Table B.6.1: Expenditures for Inpatient Services, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**-$9.59*****	- $5.76	**-$10.77****	**-$12.92****	**-$10.82****
P-value	0.006	0.192	0.024	0.011	0.033
95% Confidence Interval	(-16.42, -2.76)	(-14.41, 2.89)	(-20.10, -1.44)	(-22.89, -2.96)	(-20.80, -0.85)
Relative Difference	-1.77%	-1.06%	-2.00%	-2.40%	-2.01%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$540.33	$545.55	$538.22	$537.46	$537.33
Intervention Period Enhanced MTM Mean	$540.36	$584.46	$534.80	$528.11	$483.81
Baseline Comparison MTM Mean	$526.90	$529.12	$523.28	$526.63	$528.21
Intervention Period Comparison MTM Mean	$536.52	$573.79	$530.63	$530.21	$485.51

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

Table B.6.2: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**-$7.83*****	**-$6.99****	**-$6.98***	- $5.53	**-$13.30*****
P-value	0.003	0.029	0.051	0.119	0.001
95% Confidence Interval	(-12.92, -2.75)	(-13.26, -0.71)	(-13.98, 0.03)	(-12.49, 1.43)	(-21.14, -5.46)
Relative Difference	-2.91%	-2.56%	-2.59%	-2.07%	-5.03%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$268.94	$272.50	$269.03	$267.09	$264.64
Intervention Period Enhanced MTM Mean	$261.24	$277.90	$252.75	$248.02	$259.00
Baseline Comparison MTM Mean	$280.18	$284.90	$279.90	$277.70	$275.10
Intervention Period Comparison MTM Mean	$280.31	$297.28	$270.60	$264.16	$282.75

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

Table B.6.3: Expenditures for Emergency Department, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.99*****	**$1.21*****	**$2.19*****	**$2.33*****	**$2.71*****
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(1.47, 2.52)	(0.61, 1.82)	(1.48, 2.89)	(1.61, 3.06)	(2.01, 3.41)
Relative Difference	3.85%	2.33%	4.27%	4.51%	5.22%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$51.72	$52.02	$51.22	$51.71	$51.86
Intervention Period Enhanced MTM Mean	$48.81	$52.92	$50.24	$49.75	$38.35
Baseline Comparison MTM Mean	$54.28	$54.65	$53.74	$54.27	$54.35
Intervention Period Comparison MTM Mean	$49.37	$54.33	$50.57	$49.97	$38.14

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

Table B.6.4: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$4.87*****	**$2.55***	**$5.47*****	**$6.39*****	**$6.36*****
P-value	<0.001	0.050	<0.001	<0.001	<0.001
95% Confidence Interval	(2.67, 7.07)	(-0.00, 5.09)	(2.58, 8.36)	(3.23, 9.55)	(3.18, 9.54)
Relative Difference	1.58%	0.84%	1.78%	2.05%	2.03%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$308.38	$304.68	$306.82	$311.16	$313.82
Intervention Period Enhanced MTM Mean	$301.05	$296.34	$306.00	$316.89	$283.61
Baseline Comparison MTM Mean	$300.76	$297.07	$298.24	$303.98	$306.96
Intervention Period Comparison MTM Mean	$288.56	$286.19	$291.95	$303.31	$270.38

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

Table B.6.5: Expenditures for Ancillary Services, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$2.52*****	$0.05	**$2.20*****	**$3.50*****	**$6.20*****
P-value	<0.001	0.928	0.001	<0.001	<0.001
95% Confidence Interval	(1.55, 3.49)	(-0.99, 1.08)	(0.86, 3.55)	(2.09, 4.92)	(4.67, 7.73)
Relative Difference	1.77%	0.03%	1.55%	2.44%	4.30%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$142.68	$141.84	$142.19	$143.34	$144.09
Intervention Period Enhanced MTM Mean	$138.50	$134.37	$139.39	$143.62	$138.51
Baseline Comparison MTM Mean	$146.03	$145.67	$145.20	$146.58	$147.19
Intervention Period Comparison MTM Mean	$139.33	$138.15	$140.20	$143.35	$135.41

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

B.6.2 Health Service Utilization

This subsection presents the Model impacts on health service utilization (supplementing Section 5.2 of the main report) for beneficiaries with two or more chronic conditions. Findings are presented both cumulatively and by Model Year in the following eight tables. Similar to findings for all beneficiaries enrolled in Model-participating plans, estimated impacts on utilization of related health services were mostly aligned with the impacts on gross expenditures, and showed decreases in utilization of some services related to inpatient or institutional post-acute care.

Table B.6.6: Inpatient Admissions, Cumulative and by Model Year, Modelwide
(2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.30	-0.01	-0.44	**-0.64***	-0.20
P-value	0.207	0.980	0.172	0.057	0.537
95% Confidence Interval	(-0.76, 0.16)	(-0.58, 0.56)	(-1.08, 0.19)	(-1.29, 0.02)	(-0.84, 0.44)
Relative Difference	-0.60%	-0.02%	-0.90%	-1.30%	-0.41%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	49.11	49.66	48.97	48.81	48.66
Intervention Period Enhanced MTM Mean	47.88	52.46	48.22	47.06	40.17
Baseline Comparison MTM Mean	47.75	48.07	47.45	47.66	47.70
Intervention Period Comparison MTM Mean	46.82	50.88	47.15	46.54	39.41

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

Table B.6.7: Inpatient Length of Stay, Cumulative and by Model Year, Modelwide
(2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	0.95	**4.50***	-1.54	-2.17	1.79
P-value	0.628	0.062	0.574	0.434	0.525
95% Confidence Interval	(-2.91, 4.81)	(-0.22, 9.22)	(-6.92, 3.83)	(-7.60, 3.26)	(-3.73, 7.31)
Relative Difference	0.30%	1.39%	-0.48%	-0.68%	0.57%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	319.83	324.75	318.75	317.08	315.81
Intervention Period Enhanced MTM Mean	320.57	355.29	318.91	307.83	276.01
Baseline Comparison MTM Mean	311.72	315.26	309.64	310.33	309.89
Intervention Period Comparison MTM Mean	311.50	341.30	311.35	303.25	268.31

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

Table B.6.8: Rate of Hospital Readmissions, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	**-4.00*****	-2.29	**-5.66*****	**-4.75****	**-4.18***
P-value	0.005	0.186	0.005	0.026	0.075
95% Confidence Interval	(-6.82, -1.19)	(-5.68, 1.10)	(-9.60, -1.72)	(-8.92, -0.58)	(-8.78, 0.41)
Relative Difference	-2.43%	-1.38%	-3.43%	-2.89%	-2.55%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	164.84	165.49	164.82	164.34	164.08
Intervention Period Enhanced MTM Rate	195.86	198.09	195.16	195.79	191.93
Baseline Comparison MTM Rate	160.69	160.46	160.38	160.93	161.37
Intervention Period Comparison MTM Rate	195.71	195.35	196.38	197.13	193.39

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 942,098 (327,789 beneficiaries). Number of comparison observations: 1,177,951 (414,721 beneficiaries).

Table B.6.9: Skilled Nursing Facility Admissions, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.29****	-0.10	-0.24	**-0.31***	**-0.70*****
P-value	0.012	0.491	0.144	0.056	<0.001
95% Confidence Interval	(-0.52, -0.07)	(-0.39, 0.19)	(-0.55, 0.08)	(-0.63, 0.01)	(-1.02, -0.38)
Relative Difference	-2.30%	-0.78%	-1.85%	-2.43%	-5.53%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	12.82	12.97	12.81	12.74	12.68
Intervention Period Enhanced MTM Mean	13.09	14.16	13.09	12.42	11.99
Baseline Comparison MTM Mean	11.94	12.05	11.90	11.92	11.84
Intervention Period Comparison MTM Mean	12.51	13.34	12.41	11.91	11.86

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

Table B.6.10: Skilled Nursing Facility Length of Stay, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-38.39*****	-4.74	**-21.36****	**-43.94*****	**-115.38*****
P-value	<0.001	0.478	0.015	<0.001	<0.001
95% Confidence Interval	(-50.89, -25.89)	(-17.85, 8.37)	(-38.60, -4.13)	(-61.55, -26.32)	(-132.96, -97.81)
Relative Difference	-5.20%	-0.63%	-2.90%	-6.01%	-16.14%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	737.59	754.60	737.49	731.47	714.67
Intervention Period Enhanced MTM Mean	640.69	773.25	655.04	567.93	471.22
Baseline Comparison MTM Mean	618.36	630.86	617.40	613.21	603.49
Intervention Period Comparison MTM Mean	559.84	654.25	556.31	493.60	475.42

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

Table B.6.11: Emergency Department Visits, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**2.47*****	**0.72***	**2.98*****	**3.20*****	**4.04*****
P-value	<0.001	0.091	<0.001	<0.001	<0.001
95% Confidence Interval	(1.72, 3.23)	(-0.11, 1.55)	(1.99, 3.98)	(2.15, 4.24)	(3.02, 5.07)
Relative Difference	3.26%	0.94%	3.97%	4.21%	5.33%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	75.78	76.30	75.07	75.82	75.80
Intervention Period Enhanced MTM Mean	67.72	74.82	69.26	67.96	52.61
Baseline Comparison MTM Mean	79.91	80.61	79.10	79.89	79.82
Intervention Period Comparison MTM Mean	69.38	78.40	70.31	68.83	52.58

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

Table B.6.12: Outpatient Non-ED Visits, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**10.35***	0.79	**14.95***	**16.52***	**13.68***
P-value	<0.001	0.650	<0.001	<0.001	<0.001
95% Confidence Interval	(6.82, 13.87)	(-2.63, 4.21)	(10.19, 19.72)	(11.34, 21.69)	(8.66, 18.70)
Relative Difference	1.71%	0.13%	2.48%	2.70%	2.23%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	606.78	602.36	602.74	612.40	613.50
Intervention Period Enhanced MTM Mean	605.91	602.63	617.77	632.65	563.26
Baseline Comparison MTM Mean	599.85	596.00	594.01	604.18	609.59
Intervention Period Comparison MTM Mean	588.63	595.48	594.08	607.92	545.66

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

Table B.6.13: Evaluation and Management Visits, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**15.07***	**2.59***	**19.77***	**18.91***	**26.31***
P-value	<0.001	0.099	<0.001	<0.001	<0.001
95% Confidence Interval	(11.75, 18.39)	(-0.49, 5.68)	(15.48, 24.07)	(14.11, 23.72)	(21.27, 31.36)
Relative Difference	1.53%	0.27%	2.01%	1.91%	2.65%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	983.75	974.18	983.52	989.76	993.95
Intervention Period Enhanced MTM Mean	946.05	950.31	971.75	984.33	856.98
Baseline Comparison MTM Mean	987.08	982.29	985.27	990.29	994.30
Intervention Period Comparison MTM Mean	934.31	955.82	953.73	965.94	831.01

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

B.6.3 Inpatient Expenditures and Admissions Related to Ambulatory Care-Sensitive Conditions (ACSCs)

This subsection presents additional information and findings of the Model impacts on inpatient expenditures and admissions related to the ACSC Chronic Composite Measure (supplementing Section 5.2 of the main report) for beneficiaries with two or more chronic conditions. Findings are presented for the Model as a whole, both cumulative and for each Model Year in the two tables below. Cumulatively across all four Model Years, there were significant cumulative decreases in inpatient expenditures and inpatient admissions related to ACSCs. These findings are similar to findings for all beneficiaries enrolled in Model-participating plans.

Table B.6.14: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**-$2.13*****	- $1.25	**-$2.14****	**-$4.00*****	- $1.42
P-value	0.004	0.228	0.041	<0.001	0.186
95% Confidence Interval	(-3.59, -0.67)	(-3.29, 0.78)	(-4.20, -0.09)	(-6.12, -1.88)	(-3.52, 0.68)
Relative Difference	-4.40%	-2.57%	-4.48%	-8.34%	-2.92%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$48.32	$48.76	$47.82	$48.02	$48.56
Intervention Period Enhanced MTM Mean	$57.17	$67.21	$56.95	$54.02	$43.26
Baseline Comparison MTM Mean	$45.90	$45.87	$45.07	$46.19	$46.76
Intervention Period Comparison MTM Mean	$56.88	$65.57	$56.34	$56.20	$42.89

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

Table B.6.15: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year, Modelwide (2+ Chronic Conditions Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.28*****	**-0.17***	**-0.34*****	**-0.47*****	**-0.17***
P-value	<0.001	0.082	0.001	<0.001	0.095
95% Confidence Interval	(-0.43, -0.14)	(-0.36, 0.02)	(-0.55, -0.14)	(-0.69, -0.25)	(-0.38, 0.03)
Relative Difference	-4.56%	-2.72%	-5.59%	-7.64%	-2.79%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	6.20	6.26	6.15	6.16	6.19
Intervention Period Enhanced MTM Mean	6.78	7.96	6.75	6.55	4.98
Baseline Comparison MTM Mean	5.89	5.90	5.81	5.90	5.95
Intervention Period Comparison MTM Mean	6.75	7.77	6.75	6.75	4.91

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 21,911,981 (541,122 beneficiaries). Number of comparison observations: 26,890,949 (703,225 beneficiaries).

B.7 Supplementary Findings on Model Impacts: Enrollees with Diabetes

This section presents additional information and Modelwide findings on the estimated impacts of Enhanced MTM for enrollees with diabetes presented in Section 5.2 of the main report, including findings not reported in the body of the report.

Appendix Sections B.7.1 and B.7.2 present setting-specific Medicare expenditures (five tables) and health service utilization (eight tables), respectively. Appendix Section B.7.3 presents inpatient expenditures and admissions related to the ACSC Chronic Composite Measure (two tables, one for each measure).

B.7.1 Setting-specific Medicare Expenditures

This subsection presents the Model impacts on Medicare expenditures by service delivery setting (supplementing Section 5.2 of the main report) for beneficiaries included in the diabetes subgroup. Findings are presented for the cumulative time period and for each Model Year separately in the following five tables. There were statistically significant increases in expenditures for emergency department, outpatient non-emergency, and ancillary services. Decreases in expenditures for hospital inpatient services and institutional post-acute care were not statistically significant.

Table B.7.1: Expenditures for Inpatient Services, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $4.16	- $2.15	- $1.92	- $5.19	- $9.84
P-value	0.296	0.665	0.726	0.380	0.111
95% Confidence Interval	(-11.95, 3.64)	(-11.90, 7.59)	(-12.67, 8.82)	(-16.77, 6.40)	(-21.94, 2.26)
Relative Difference	-0.87%	-0.45%	-0.40%	-1.09%	-2.06%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$479.37	$482.99	$477.25	$476.97	$478.43
Intervention Period Enhanced MTM Mean	$522.62	$555.65	$516.46	$511.90	$481.96
Baseline Comparison MTM Mean	$461.65	$463.30	$457.54	$461.54	$464.46
Intervention Period Comparison MTM Mean	$509.06	$538.12	$498.67	$501.65	$477.82

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

Table B.7.2: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $2.83	- $5.27	$2.75	$0.62	- $10.28
P-value	0.390	0.155	0.499	0.879	0.253
95% Confidence Interval	(-9.28, 3.62)	(-12.53, 1.99)	(-5.21, 10.71)	(-7.28, 8.51)	(-27.92, 7.36)
Relative Difference	-1.21%	-2.23%	1.18%	0.27%	-4.45%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$233.77	$236.64	$233.34	$232.05	$231.06
Intervention Period Enhanced MTM Mean	$242.31	$252.57	$234.63	$229.31	$249.62
Baseline Comparison MTM Mean	$244.87	$248.50	$244.14	$242.43	$242.01
Intervention Period Comparison MTM Mean	$256.23	$269.70	$242.68	$239.07	$270.85

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

Table B.7.3: Expenditures for Emergency Department, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.58***	**$0.90**	**$1.73***	**$1.80***	**$2.37***
P-value	<0.001	0.011	<0.001	<0.001	<0.001
95% Confidence Interval	(0.98, 2.17)	(0.21, 1.60)	(0.92, 2.53)	(0.97, 2.62)	(1.54, 3.20)
Relative Difference	3.44%	1.97%	3.80%	3.90%	5.13%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$45.86	$45.96	$45.36	$46.02	$46.17
Intervention Period Enhanced MTM Mean	$45.24	$49.03	$46.24	$45.92	$35.85
Baseline Comparison MTM Mean	$47.61	$47.80	$47.08	$47.66	$47.95
Intervention Period Comparison MTM Mean	$45.43	$49.97	$46.24	$45.77	$35.26

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

Table B.7.4: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$3.89***	$2.28	**$4.61***	**$5.28***	**$4.19**
P-value	0.002	0.101	0.005	0.003	0.022
95% Confidence Interval	(1.48, 6.29)	(-0.44, 5.01)	(1.40, 7.82)	(1.84, 8.72)	(0.61, 7.77)
Relative Difference	1.43%	0.85%	1.70%	1.92%	1.52%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$272.13	$269.45	$271.01	$274.42	$276.00
Intervention Period Enhanced MTM Mean	$275.32	$270.25	$281.41	$290.07	$258.30
Baseline Comparison MTM Mean	$263.78	$261.78	$261.78	$265.94	$267.75
Intervention Period Comparison MTM Mean	$263.08	$260.30	$267.56	$276.30	$245.86

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

Table B.7.5: Expenditures for Ancillary Services, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$2.62*****	$0.79	**$2.37*****	**$3.46*****	**$5.43*****
P-value	<0.001	0.184	0.002	<0.001	<0.001
95% Confidence Interval	(1.52, 3.73)	(-0.38, 1.97)	(0.90, 3.83)	(1.77, 5.14)	(3.58, 7.27)
Relative Difference	2.06%	0.63%	1.86%	2.70%	4.22%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$127.54	$126.86	$127.22	$128.11	$128.60
Intervention Period Enhanced MTM Mean	$128.76	$124.01	$129.93	$134.29	$129.34
Baseline Comparison MTM Mean	$131.53	$131.41	$130.93	$131.76	$132.29
Intervention Period Comparison MTM Mean	$130.12	$127.77	$131.27	$134.49	$127.61

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

B.7.2 Health Service Utilization

This subsection presents the Model impacts on health service utilization (supplementing Section 5.2 of the main report) for beneficiaries included in the diabetes subgroup. Findings are presented both cumulatively and by Model Year in the following eight tables. Similar to findings for all beneficiaries enrolled in Model-participating plans, estimated impacts on utilization of related health services were mostly aligned with the impacts on gross expenditures, and showed decreases in utilization of some services related to inpatient or institutional post-acute care.

Table B.7.6: Inpatient Admissions, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	0.19	0.52	0.13	-0.07	-0.02
P-value	0.472	0.105	0.728	0.857	0.959
95% Confidence Interval	(-0.33, 0.72)	(-0.11, 1.16)	(-0.60, 0.85)	(-0.82, 0.69)	(-0.82, 0.77)
Relative Difference	0.45%	1.21%	0.30%	-0.16%	-0.05%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	43.00	43.39	42.86	42.77	42.75
Intervention Period Enhanced MTM Mean	44.77	48.67	44.83	43.86	38.40
Baseline Comparison MTM Mean	41.53	41.75	41.20	41.46	41.64
Intervention Period Comparison MTM Mean	43.10	46.51	43.05	42.62	37.30

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

Table B.7.7: Inpatient Length of Stay, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**4.57***	**7.24***	4.46	1.68	3.22
P-value	0.053	0.009	0.173	0.619	0.373
95% Confidence Interval	(-0.06, 9.20)	(1.78, 12.70)	(-1.96, 10.87)	(-4.93, 8.29)	(-3.87, 10.32)
Relative Difference	1.56%	2.44%	1.53%	0.58%	1.11%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	292.76	296.25	291.67	290.56	290.42
Intervention Period Enhanced MTM Mean	313.18	342.14	310.88	300.76	276.83
Baseline Comparison MTM Mean	282.60	285.04	280.30	281.53	282.54
Intervention Period Comparison MTM Mean	298.44	323.69	295.05	290.04	265.73

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

Table B.7.8: Rate of Hospital Readmissions, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	**-3.96****	-0.58	**-5.04***	**-5.16***	**-8.59*****
P-value	0.046	0.805	0.066	0.078	0.008
95% Confidence Interval	(-7.86, -0.06)	(-5.16, 4.01)	(-10.41, 0.33)	(-10.91, 0.58)	(-14.89, -2.29)
Relative Difference	-2.14%	-0.31%	-2.72%	-2.79%	-4.63%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	185.48	185.78	185.31	185.27	185.35
Intervention Period Enhanced MTM Rate	210.15	213.13	208.51	210.88	204.74
Baseline Comparison MTM Rate	181.28	180.74	180.78	181.77	182.68
Intervention Period Comparison MTM Rate	209.91	208.67	209.02	212.54	210.66

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 577,712 (194,602 beneficiaries). Number of comparison observations: 691,651 (233,416 beneficiaries).

Table B.7.9: Skilled Nursing Facility Admissions, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.03	0.17	0.13	-0.12	**-0.51****
P-value	0.819	0.308	0.492	0.487	0.041
95% Confidence Interval	(-0.29, 0.23)	(-0.15, 0.49)	(-0.23, 0.48)	(-0.47, 0.23)	(-1.00, -0.02)
Relative Difference	-0.28%	1.54%	1.17%	-1.16%	-4.79%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	10.73	10.84	10.70	10.65	10.66
Intervention Period Enhanced MTM Mean	11.70	12.52	11.65	10.99	11.09
Baseline Comparison MTM Mean	10.00	10.07	9.93	9.99	10.01
Intervention Period Comparison MTM Mean	11.01	11.58	10.76	10.45	10.95

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

Table B.7.10: Skilled Nursing Facility Length of Stay, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-24.45***	2.27	-10.86	**-28.01***	**-89.78***
P-value	0.001	0.758	0.272	0.005	<0.001
95% Confidence Interval	(-38.61, -10.28)	(-12.16, 16.70)	(-30.26, 8.54)	(-47.59, -8.43)	(-112.24, -67.32)
Relative Difference	-3.92%	0.36%	-1.75%	-4.52%	-14.72%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	623.76	634.79	622.10	619.77	610.13
Intervention Period Enhanced MTM Mean	559.70	660.12	567.17	500.40	431.70
Baseline Comparison MTM Mean	525.78	533.01	523.74	522.58	518.90
Intervention Period Comparison MTM Mean	486.17	556.08	479.66	431.23	430.25

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

Table B.7.11: Emergency Department Visits, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**2.09***	0.40	**2.39***	**3.10***	**3.60***
P-value	<0.001	0.424	<0.001	<0.001	<0.001
95% Confidence Interval	(1.22, 2.96)	(-0.59, 1.39)	(1.25, 3.53)	(1.89, 4.31)	(2.37, 4.84)
Relative Difference	3.03%	0.58%	3.51%	4.47%	5.19%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	69.00	69.18	68.22	69.32	69.38
Intervention Period Enhanced MTM Mean	63.75	70.06	64.85	64.23	49.70
Baseline Comparison MTM Mean	72.52	72.91	71.65	72.63	72.88
Intervention Period Comparison MTM Mean	65.19	73.39	65.89	64.45	49.60

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

Table B.7.12: Outpatient Non-ED Visits, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**12.51*****	2.26	**16.12*****	**22.33*****	**14.82*****
P-value	<0.001	0.226	<0.001	<0.001	<0.001
95% Confidence Interval	(8.80, 16.22)	(-1.40, 5.92)	(11.11, 21.12)	(17.00, 27.66)	(8.95, 20.68)
Relative Difference	2.25%	0.41%	2.92%	3.97%	2.63%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	557.23	553.38	552.75	563.04	563.72
Intervention Period Enhanced MTM Mean	577.10	566.56	587.76	607.69	544.63
Baseline Comparison MTM Mean	544.24	541.06	537.88	548.58	553.94
Intervention Period Comparison MTM Mean	551.61	551.98	556.78	570.90	520.04

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

Table B.7.13: Evaluation and Management Visits, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**12.06*****	1.71	**16.41*****	**16.01*****	**20.66*****
P-value	<0.001	0.316	<0.001	<0.001	<0.001
95% Confidence Interval	(8.43, 15.69)	(-1.63, 5.04)	(11.70, 21.13)	(10.85, 21.18)	(14.91, 26.41)
Relative Difference	1.38%	0.20%	1.88%	1.83%	2.35%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	870.98	864.02	871.42	876.01	877.36
Intervention Period Enhanced MTM Mean	857.62	860.22	882.60	892.92	774.34
Baseline Comparison MTM Mean	876.99	874.93	875.90	878.50	880.59
Intervention Period Comparison MTM Mean	851.58	869.42	870.67	879.39	756.91

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

B.7.3 Inpatient Expenditures and Admissions Related to Ambulatory Care-Sensitive Conditions (ACSCs)

This subsection presents additional information and findings of the Model impacts on inpatient expenditures and admissions related to the ACSC Chronic Composite Measure (supplementing Section 5.2 of the main report) for beneficiaries included in the diabetes subgroup. Findings are presented for the Model as a whole, both cumulative and for each Model Year in the two tables below. Cumulatively across all four Model Years, there was a significant cumulative decrease in inpatient admissions related to ACSCs and a non-significant decrease in inpatient expenditures related to ACSCs. These findings are consistent with findings for all beneficiaries enrolled in Model-participating plans.

Table B.7.14: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	- $0.57	$1.02	$0.69	**-$3.61****	- $1.65
P-value	0.552	0.419	0.615	0.010	0.285
95% Confidence Interval	(-2.45, 1.31)	(-1.46, 3.51)	(-2.00, 3.38)	(-6.36, -0.85)	(-4.68, 1.38)
Relative Difference	-1.11%	1.99%	1.36%	-7.04%	-3.17%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$51.37	$51.56	$50.71	$51.24	$52.12
Intervention Period Enhanced MTM Mean	$62.29	$70.61	$62.87	$59.25	$49.46
Baseline Comparison MTM Mean	$48.53	$48.27	$47.44	$49.05	$49.93
Intervention Period Comparison MTM Mean	$60.02	$66.29	$58.90	$60.66	$48.93

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

Table B.7.15: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year, Modelwide (Diabetes Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.16***	0.06	-0.13	**-0.46*****	**-0.23***
P-value	0.080	0.583	0.280	<0.001	0.082
95% Confidence Interval	(-0.33, 0.02)	(-0.16, 0.29)	(-0.38, 0.11)	(-0.72, -0.21)	(-0.50, 0.03)
Relative Difference	-2.57%	1.01%	-2.22%	-7.58%	-3.78%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	6.14	6.17	6.08	6.12	6.19
Intervention Period Enhanced MTM Mean	6.79	7.82	6.79	6.53	5.14
Baseline Comparison MTM Mean	5.77	5.76	5.67	5.80	5.88
Intervention Period Comparison MTM Mean	6.57	7.34	6.52	6.68	5.06

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 14,785,204 (368,208 beneficiaries). Number of comparison observations: 17,569,830 (451,249 beneficiaries).

B.8 Supplementary Findings on Model Impacts: Enrollees with Drug Therapy Problems (DTPs)

This section presents additional information and Modelwide findings on the estimated impacts of Enhanced MTM for enrollees with drug therapy problems (DTPs) presented in Section 5.2 of the main report, including findings not reported in the body of the report.

Appendix Sections B.8.1 and B.8.2 present setting-specific Medicare expenditures (five tables) and health service utilization (eight tables), respectively. Appendix Section B.8.3 presents inpatient expenditures and admissions related to the ACSC Chronic Composite Measure (two tables, one for each measure).

B.8.1 Setting-specific Medicare Expenditures

This subsection presents the Model impacts on Medicare expenditures by service delivery setting (supplementing Section 5.2 of the main report) for beneficiaries included in the DTPs subgroup. Findings are presented for the cumulative time period and for each Model Year separately in the following five tables. There were statistically significant decreases in expenditures for hospital inpatient services and institutional post-acute care, and increases in expenditures for emergency department, outpatient non-emergency, and ancillary services. These findings are similar to findings for all beneficiaries enrolled in Model-participating plans.

Table B.8.1: Expenditures for Inpatient Services, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	$3.29	$0.95	$3.60	$8.14	$1.04
P-value	0.501	0.864	0.580	0.235	0.889
95% Confidence Interval	(-6.29, 12.88)	(-9.90, 11.80)	(-9.14, 16.33)	(-5.29, 21.57)	(-13.64, 15.73)
Relative Difference	0.26%	0.08%	0.29%	0.65%	0.08%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$1,251.53	$1,251.31	$1,246.50	$1,252.44	$1,257.36
Intervention Period Enhanced MTM Mean	$1,315.97	$1,337.55	$1,315.86	$1,328.16	$1,266.72
Baseline Comparison MTM Mean	$1,280.94	$1,283.71	$1,274.17	$1,280.42	$1,285.81
Intervention Period Comparison MTM Mean	$1,342.09	$1,369.01	$1,339.93	$1,348.00	$1,294.12

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

Table B.8.2: Expenditures for Institutional Post-acute Care, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**-$3.90****	- $2.45	- $2.62	- $2.02	**-$10.11***
P-value	0.049	0.308	0.308	0.438	0.002
95% Confidence Interval	(-7.78, -0.02)	(-7.17, 2.26)	(-7.66, 2.42)	(-7.12, 3.08)	(-16.62, -3.59)
Relative Difference	-2.09%	-1.31%	-1.41%	-1.09%	-5.47%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$186.19	$187.34	$186.13	$185.75	$184.90
Intervention Period Enhanced MTM Mean	$188.29	$197.66	$182.83	$178.73	$191.33
Baseline Comparison MTM Mean	$196.71	$198.98	$196.45	$195.39	$194.90
Intervention Period Comparison MTM Mean	$202.71	$211.76	$195.77	$190.38	$211.43

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

Table B.8.3: Expenditures for Emergency Department, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.65***	**$1.27***	**$1.47***	**$1.72***	**$2.42***
P-value	<0.001	<0.001	<0.001	<0.001	<0.001
95% Confidence Interval	(1.24, 2.06)	(0.81, 1.74)	(0.92, 2.02)	(1.16, 2.28)	(1.88, 2.97)
Relative Difference	3.93%	3.03%	3.54%	4.07%	5.71%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$42.03	$42.04	$41.59	$42.20	$42.40
Intervention Period Enhanced MTM Mean	$40.90	$44.20	$42.22	$41.81	$32.73
Baseline Comparison MTM Mean	$44.40	$44.54	$43.92	$44.51	$44.68
Intervention Period Comparison MTM Mean	$41.62	$45.43	$43.08	$42.40	$32.59

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

Table B.8.4: Expenditures for Outpatient Non-ED Services, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$3.18***	**$2.80***	**$3.69***	**$3.36***	**$2.89**
P-value	<0.001	0.005	0.002	0.006	0.019
95% Confidence Interval	(1.43, 4.92)	(0.84, 4.76)	(1.39, 6.00)	(0.99, 5.74)	(0.48, 5.29)
Relative Difference	1.24%	1.11%	1.44%	1.30%	1.11%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$256.70	$253.48	$255.62	$258.90	$260.79
Intervention Period Enhanced MTM Mean	$257.55	$252.78	$262.83	$271.34	$242.31
Baseline Comparison MTM Mean	$251.42	$249.03	$249.83	$253.19	$255.31
Intervention Period Comparison MTM Mean	$249.09	$245.52	$253.35	$262.27	$233.93

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

Table B.8.5: Expenditures for Ancillary Services, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**$1.60***	$0.13	**$1.48***	**$1.64***	**$4.09***
P-value	<0.001	0.755	0.004	0.004	<0.001
95% Confidence Interval	(0.82, 2.37)	(-0.69, 0.95)	(0.46, 2.50)	(0.51, 2.77)	(2.92, 5.27)
Relative Difference	1.34%	0.11%	1.24%	1.37%	3.40%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$119.36	$118.54	$118.96	$119.97	$120.49
Intervention Period Enhanced MTM Mean	$118.92	$115.60	$120.34	$123.05	$117.65
Baseline Comparison MTM Mean	$122.54	$122.35	$121.97	$122.79	$123.31
Intervention Period Comparison MTM Mean	$120.51	$119.28	$121.88	$124.23	$116.38

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

B.8.2 Health Service Utilization

This subsection presents the Model impacts on health service utilization (supplementing Section 5.2 of the main report) for beneficiaries included in the DTPs subgroup. Findings are presented both cumulatively and by Model Year in the following eight tables. Similar to findings for all beneficiaries enrolled in Model-participating plans, estimated impacts on utilization of related health services were mostly aligned with the impacts on gross expenditures, and showed decreases in utilization of some services related to inpatient or institutional post-acute care.

Table B.8.6: Inpatient Admissions, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	-0.02	0.36	-0.39	-0.26	0.12
P-value	0.912	0.103	0.115	0.305	0.646
95% Confidence Interval	(-0.38, 0.34)	(-0.07, 0.80)	(-0.88, 0.09)	(-0.75, 0.23)	(-0.38, 0.61)
Relative Difference	-0.05%	0.98%	-1.07%	-0.70%	0.32%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	36.70	36.90	36.57	36.63	36.64
Intervention Period Enhanced MTM Mean	37.09	40.56	37.40	36.54	31.70
Baseline Comparison MTM Mean	36.04	36.20	35.81	35.99	36.12
Intervention Period Comparison MTM Mean	36.45	39.51	37.03	36.15	31.06

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

Table B.8.7: Inpatient Length of Stay, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	2.39	**5.05***	-0.18	0.66	3.39
P-value	0.123	0.007	0.933	0.758	0.124
95% Confidence Interval	(-0.65, 5.42)	(1.40, 8.70)	(-4.35, 3.99)	(-3.55, 4.88)	(-0.93, 7.72)
Relative Difference	0.98%	2.05%	-0.07%	0.27%	1.39%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	244.18	246.03	242.90	243.46	243.66
Intervention Period Enhanced MTM Mean	253.26	277.68	252.44	245.30	223.89
Baseline Comparison MTM Mean	239.81	241.56	237.99	239.26	239.97
Intervention Period Comparison MTM Mean	246.51	268.15	247.70	240.44	216.81

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

Table B.8.8: Rate of Hospital Readmissions, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000 Index Admissions Estimate					
Difference-in-Differences	**-3.58****	-0.83	**-4.59****	**-5.62*****	**-4.95****
P-value	0.014	0.634	0.020	0.007	0.029
95% Confidence Interval	(-6.42, -0.73)	(-4.22, 2.57)	(-8.46, -0.71)	(-9.68, -1.56)	(-9.41, -0.49)
Relative Difference	-2.17%	-0.50%	-2.79%	-3.42%	-3.02%
Rates of Readmissions per 1,000 Index Admissions (regression-adjusted)					
Baseline Enhanced MTM Rate	164.57	164.97	164.54	164.24	164.21
Intervention Period Enhanced MTM Rate	185.09	188.52	183.06	183.80	182.83
Baseline Comparison MTM Rate	160.15	160.10	159.90	160.13	160.67
Intervention Period Comparison MTM Rate	184.25	184.47	183.00	185.31	184.24

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is an index admission. Number of Enhanced MTM observations: 937,463 (344,509 beneficiaries). Number of comparison observations: 1,258,423 (464,508 beneficiaries).

Table B.8.9: Skilled Nursing Facility Admissions, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.17****	0.00	-0.15	-0.18	**-0.47*****
P-value	0.047	0.976	0.193	0.120	<0.001
95% Confidence Interval	(-0.34, -0.00)	(-0.21, 0.22)	(-0.39, 0.08)	(-0.41, 0.05)	(-0.72, -0.23)
Relative Difference	-1.95%	0.04%	-1.74%	-2.05%	-5.37%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	8.87	8.91	8.86	8.85	8.83
Intervention Period Enhanced MTM Mean	9.34	10.04	9.35	8.84	8.80
Baseline Comparison MTM Mean	8.42	8.46	8.39	8.41	8.41
Intervention Period Comparison MTM Mean	9.07	9.58	9.03	8.58	8.85

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

Table B.8.10: Skilled Nursing Facility Length of Stay, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-27.04***	-2.64	-9.32	**-31.82***	**-84.20***
P-value	<0.001	0.588	0.149	<0.001	<0.001
95% Confidence Interval	(-36.45, -17.63)	(-12.21, 6.93)	(-21.98, 3.33)	(-45.09, -18.55)	(-97.62, -70.77)
Relative Difference	-5.07%	-0.49%	-1.75%	-6.00%	-16.18%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	532.95	542.57	533.03	530.15	520.45
Intervention Period Enhanced MTM Mean	466.20	556.74	486.12	416.73	350.79
Baseline Comparison MTM Mean	449.97	455.26	448.89	448.31	444.72
Intervention Period Comparison MTM Mean	410.27	472.07	411.31	366.71	359.26

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

Table B.8.11: Emergency Department Visits, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**2.24***	**0.96***	**2.07***	**2.72***	**3.97***
P-value	<0.001	0.005	<0.001	<0.001	<0.001
95% Confidence Interval	(1.62, 2.86)	(0.29, 1.63)	(1.27, 2.88)	(1.88, 3.57)	(3.13, 4.82)
Relative Difference	3.36%	1.44%	3.15%	4.07%	5.93%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	66.64	66.74	65.93	66.94	67.04
Intervention Period Enhanced MTM Mean	61.08	67.08	62.68	61.68	48.54
Baseline Comparison MTM Mean	70.33	70.65	69.54	70.53	70.59
Intervention Period Comparison MTM Mean	62.53	70.03	64.21	62.55	48.11

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

Table B.8.12: Outpatient Non-ED Visits, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**10.38***	**3.26***	**15.85***	**15.09***	**9.35***
P-value	<0.001	0.017	<0.001	<0.001	<0.001
95% Confidence Interval	(7.64, 13.12)	(0.58, 5.94)	(12.31, 19.39)	(11.27, 18.91)	(5.36, 13.33)
Relative Difference	1.95%	0.62%	3.00%	2.80%	1.73%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	532.94	528.22	529.14	538.38	539.18
Intervention Period Enhanced MTM Mean	542.36	534.84	554.06	569.26	507.93
Baseline Comparison MTM Mean	523.98	520.77	518.92	527.68	531.42
Intervention Period Comparison MTM Mean	523.02	524.13	527.99	543.47	490.83

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

Table B.8.13: Evaluation and Management Visits, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**6.58***	1.20	**9.09***	**5.92***	**12.85***
P-value	<0.001	0.326	<0.001	0.001	<0.001
95% Confidence Interval	(3.97, 9.18)	(-1.20, 3.60)	(5.69, 12.50)	(2.28, 9.55)	(8.92, 16.78)
Relative Difference	0.75%	0.14%	1.04%	0.67%	1.46%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	873.74	866.18	873.41	878.18	881.26
Intervention Period Enhanced MTM Mean	846.01	856.56	869.00	877.75	761.78
Baseline Comparison MTM Mean	878.93	877.02	877.84	879.58	882.69
Intervention Period Comparison MTM Mean	844.62	866.20	864.33	873.24	750.36

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

B.8.3 Inpatient Expenditures and Admissions Related to Ambulatory Care-Sensitive Conditions (ACSCs)

This subsection presents additional information and findings of the Model impacts on inpatient expenditures and admissions related to the ACSC Chronic Composite Measure (supplementing Section 5.2 of the main report) for beneficiaries included in the DTPs subgroup. Findings are presented for the Model as a whole, both cumulative and for each Model Year in the two tables below. Cumulatively across all four Model Years, there were significant cumulative decreases in inpatient expenditures and inpatient admissions related to ACSCs. These findings are similar to findings for all beneficiaries enrolled in Model-participating plans.

Table B.8.14: Inpatient Expenditures for ACSC Chronic Composite Measure, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per-Beneficiary Per-Month Estimate (in $)					
Difference-in-Differences	**-$1.00***	- $0.13	**-$1.49**	**-$1.52**	- $1.20
P-value	0.062	0.855	0.044	0.043	0.111
95% Confidence Interval	(-2.06, 0.05)	(-1.58, 1.32)	(-2.93, -0.04)	(-2.98, -0.05)	(-2.67, 0.28)
Relative Difference	-3.13%	-0.42%	-4.67%	-4.74%	-3.70%
Means (beneficiary-month, regression-adjusted)					
Baseline Enhanced MTM Mean	$32.07	$32.16	$31.79	$32.01	$32.35
Intervention Period Enhanced MTM Mean	$36.68	$43.72	$36.61	$34.83	$27.46
Baseline Comparison MTM Mean	$31.43	$31.26	$30.84	$31.69	$32.15
Intervention Period Comparison MTM Mean	$37.04	$42.96	$37.15	$36.03	$28.45

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

Table B.8.15: Inpatient Admissions for ACSC Chronic Composite Measure, Cumulative and by Model Year, Modelwide (DTPs Subgroup)

	Cumulative	Model Year 1	Model Year 2	Model Year 3	Model Year 4
Per 1,000-Beneficiaries-per-Month Estimate					
Difference-in-Differences	**-0.19***	-0.08	**-0.25***	**-0.27***	**-0.19***
P-value	<0.001	0.279	0.001	<0.001	0.007
95% Confidence Interval	(-0.29, -0.08)	(-0.21, 0.06)	(-0.40, -0.11)	(-0.42, -0.12)	(-0.33, -0.05)
Relative Difference	-4.56%	-1.83%	-6.17%	-6.52%	-4.64%
Means (1,000-beneficiaries-per-month level, regression-adjusted)					
Baseline Enhanced MTM Mean	4.13	4.15	4.11	4.13	4.14
Intervention Period Enhanced MTM Mean	4.40	5.26	4.41	4.25	3.19
Baseline Comparison MTM Mean	4.01	4.00	3.96	4.02	4.08
Intervention Period Comparison MTM Mean	4.47	5.18	4.51	4.42	3.32

Notes: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01. The unit of observation is a beneficiary-month. Number of Enhanced MTM observations: 29,260,093 (688,387 beneficiaries). Number of comparison observations: 38,897,193 (963,356 beneficiaries).

B.9 Beneficiary Enrollment in Enhanced MTM Plan Benefit Packages (PBPs) – Supplemental Findings for Section 1

This appendix section presents additional information regarding the findings presented in the Introduction (Section 1 of the main report) on changes in beneficiary enrollment in Enhanced MTM PBPs over Model Years 1 (2017) through 4 (2020). Specifically, it provides information on sponsors' individual PBP enrollment, and changes in PBP premium, benchmark status, and de minimis program participation throughout the four Model Years.

Changes in benchmark status impact overall PBP enrollment trends, since losing or gaining benchmark status has implications for the enrollment of dual-eligible beneficiaries and beneficiaries who qualify for the low-income subsidy (LIS). The maximum premium that PBPs may charge and still be eligible for automatic enrollment of dual-eligible beneficiaries and LIS recipients by CMS is determined by regional benchmark amounts, which are calculated annually. The PBPs with premiums below the regional benchmark amount are called "benchmark" PBPs. A PBP may effectively retain benchmark status if (i) its monthly premium is within a "de minimis" amount (set at $2 for 2017-2019) over the regional benchmark, and (ii) it volunteers to waive the de minimis amount for dual-eligible beneficiaries and LIS recipients. For PBPs that elect to waive the de minimis amount, the law prohibits CMS from reassigning LIS beneficiaries who are enrolled with them to other PBPs. However, these PBPs do not qualify for automatic enrollment of newly subsidy-eligible beneficiaries by CMS.

As noted in Section 1 of the main report, total Enhanced MTM PBP enrollment remained fairly constant for the first three years of the Model, followed by a decrease in Model Year 4. At the sponsor level, enrollment varied by sponsor and by year. Enrollment for most individual sponsors decreased in Model Year 4, with the exception of WellCare.

For Humana, BCBS NPA, and BCBS FL, there were decreases in Enhanced MTM PBP enrollment in each of the four years of the Model. Humana's enrollment decreased substantially (37 percent) from Model Year 1 to Model Year 2, driven by a loss in benchmark status for Humana's Florida PBP (S5884-105) beginning in Model Year 2. The single BCBS FL PBP did not have benchmark status or waive the de minimis amount in any of the three Model Years. The single BCBS NPA PBP waived the de minimis amount only in Model Year 1.

SilverScript/CVS, UnitedHealth, and WellCare experienced fluctuations in enrollment from Model Year 1 through Model Year 4. There was a large increase in SilverScript/CVS's enrollment (26 percent) from Model Year 1 to Model Year 2. SilverScript/CVS PBPs maintained benchmark status during all four Model Years. In Model Year 2, its Florida PBP (S5601-022) received dual-eligible and LIS beneficiaries disenrolled from Humana's Florida PBP that lost benchmark status that year. UnitedHealth's enrollment decreased from Model Year 1 to Model

Year 2 due to significant increases in basic and LIS premiums in 2018. UnitedHealth's enrollment then increased substantially from Model Year 2 to Model Year 3, likely due to consolidation of four non-Enhanced MTM UnitedHealth PBPs into four Enhanced MTM PBPs (S5921-352, S5921-366, S5921-370, and S5921-380) beginning in 2019. Additionally, three of the five UnitedHealth Enhanced MTM PBPs (S5921-352, S5921-366, and S5921-370) gained benchmark status, and a fourth PBP (S5921-380) waived the de minimis amount. All WellCare PBPs either maintained benchmark status or continued to waive the de minimis amounts for all four Model Years. Unlike other sponsors, in Model Year 4, WellCare's enrollment increased by 12 percent. WellCare's Virginia PBP (S4802-069) benefited from automatic enrollment of LIS recipients, after two non-Enhanced MTM PBPs in Virginia lost their benchmark status. WellCare's Model-participating Florida PBP (S4802-083) also gained benchmark status in Model Year 4, making this plan newly eligible for automatic enrollment of dual-eligible beneficiaries and LIS recipients.

Table B.9.1 summarizes participating PDPs' regions, benefit types, and enrollment from Model Year 1 (2017) to Model Year 4 (2020). Table B.9.2 summarizes participating PDPs' premiums, benchmark status, and whether they waived de minimis amount over the same time period.

Table B.9.1: Participating PBPs' Region, Benefit Type, and Enrollment from Model Year 1 (2017) to Model Year 4 (2020)

Sponsor and PBP	PDP Region	PDP Benefit Type (2017-2020)	Enrollment			
			2017	2018	2019	2020
SilverScript/CVS						
S5601-014	Virginia	BA	108,029	114,958	111,799	97,604
S5601-022	Florida	BA	288,372	470,974	479,860	419,847
S5601-042	Louisiana	BA	98,190	102,140	97,178	85,548
S5601-050	Northern Plains	BA	237,628	255,199	242,999	201,689
S5601-056	Arizona	BA	62,649	60,411	55,842	48,759
All SilverScript/CVS PBPs			794,182	1,002,916	986,835	852,880
Humana						
S5884-105	Florida	AES	246,040	69,735	52,224	42,137
S5884-108	Louisiana	AES	26,966	27,976	27,479	25,865
S5884-132	Virginia	AES	44,726	53,441	49,690	46,148
S5884-145	Northern Plains	AES	115,121	111,780	100,266	89,186
S5884-146	Arizona	AES	24,833	24,747	26,056	23,440
All Humana PBPs			457,433	287,528	255,604	226,697
BCBS NPA						
S5743-001	Northern Plains	BA	241,498	239,962	219,298	199,224
UnitedHealth						
S5921-352	Virginia	AES	18,881	14,764	37,941	38,159
S5921-356	Florida	AES	113,868	87,526	73,057	63,061
S5921-366	Louisiana	AES	9,605	7,513	22,022	21,035
S5921-370	Northern Plains	AES	24,669	17,497	55,730	51,965
S5921-380	Arizona	AES	9,064	7,068	17,568	18,670
All UnitedHealth PBPs			175,930	134,273	206,163	192,719
WellCare						
S4802-012	Louisiana	BA (2017-2019) AES (2020)	29,232	25,138	22,079	19,218
S4802-069	Virginia	BA (2017-2019) AES (2020)	37,448	37,530	33,835	45,410
S4802-083	Florida	BA (2017) AES (2018-2019)	28,646	28,853	26,089	38,171
S4802-089	Northern Plains	BA (2017-2019) AES (2020)	36,982	37,352	31,089	28,642
S4802-092	Arizona	BA (2017-2019) AES (2020)	22,904	21,432	19,536	16,746
All WellCare PBPs			155,077	150,184	132,527	148,098
BCBS FL						
S5904-001	Florida	BA	64,631	60,859	55,977	55,887

Sources: 2017 Health Plan Management System (HPMS) Plan Information File, December 2017 file, 2018 HPMS Plan Information File, December 2018 file, 2019 HPMS Plan Information File, December 2019 file, and 2020 HPMS Plan Information File, December 2020 file, accessed in December 2020. 2017 HPMS PDP Plan Service Area File, December 2017 file, 2018 HPMS PDP Plan Service Area File, December 2018 file, 2019 HPMS PDP Plan Service Area File, December 2019 file, and 2020 HPMS PDP Plan Service Area File, December 2020 file, accessed in December 2020. PDP enrollment data in the Common Medicare Environment (CME), accessed in March 2021. PDP enrollment only includes beneficiaries in Enhanced MTM-participating contract-PBPs.

Notes: BA: Basic Alternative; AES: Actuarially Equivalent Standard. The Northern Plains PDP region includes Iowa, Minnesota, Montana, Nebraska, North Dakota, South Dakota, and Wyoming.

Table B.9.2: Participating Part D Plans' Premium, Benchmark Status, and De Minimis Waiver Status from Model Year 1 (2017) to Model Year 4 (2020)

Sponsor and PBP	Monthly Basic Premium (dollars)				Monthly LIS Premium (dollars)				Benchmark Status or De Minimis Waiver Status			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
SilverScript/CVS												
S5601-014	30.80	26.00	29.20	24.70	0.00	0.00	0.00	0.00	B	B	B	B
S5601-022	28.90	26.40	28.00	25.20	0.00	0.00	0.00	0.00	B	B	B	B
S5601-042	24.20	23.10	31.50	29.00	0.00	0.00	0.00	0.00	B	B	B	B
S5601-050	31.30	28.80	32.30	33.00	0.00	0.00	0.00	0.00	B	B	B	B
S5601-056	29.70	28.50	31.20	30.50	0.00	0.00	0.00	0.00	B	B	B	B
Humana												
S5884-105	26.10	33.60	38.30	40.00	0.00	4.53	8.05	11.53	B	--	--	--
S5884-108	27.90	30.50	28.20	30.50	0.00	0.00	0.00	0.00	B	B	B	B
S5884-132	28.10	29.70	28.20	27.60	0.00	0.00	0.00	0.00	B	B	B	B
S5884-145	26.70	31.90	31.80	32.90	0.00	0.00	0.00	0.00	B	B	B	B
S5884-146	28.70	31.50	30.00	29.40	0.00	0.00	0.00	0.00	B	B	B	B
BCBS NPA												
S5743-001	35.10	37.40	37.90	42.00	1.08	3.41	2.12	6.63	D	--	--	--
UnitedHealth												
S5921-352	46.00	53.30	27.30	26.20	13.48	23.25	0.00	0.00	--	--	B	B
S5921-356	32.90	42.00	45.20	46.70	3.77	12.93	14.95	18.23	--	--	--	--
S5921-366	42.40	49.60	28.70	31.30	9.60	18.68	0.00	0.00	--	--	B	B
S5921-370	47.40	54.60	33.80	32.80	13.38	20.61	0.00	0.00	--	--	B	B
S5921-380	50.00	62.50	32.90	28.70	14.89	29.62	0.28	0.00	--	--	D	B
WellCare												
S4802-012	30.10	31.70	30.60	27.30	0.00	0.78	0.00	0.00	B	D	B	B
S4802-069	27.20	28.60	29.70	26.60	0.00	0.00	0.00	0.00	B	B	B	B
S4802-083	30.40	29.50	31.30	25.90	1.27	0.43	1.05	0.00	D	D	D	B
S4802-089	28.60	31.30	33.80	29.30	0.00	0.00	0.00	0.00	B	B	B	B
S4802-092	22.70	26.90	26.70	24.90	0.00	0.00	0.00	0.00	B	B	B	B
BCBS FL												
S5904-001	79.40	76.30	66.20	72.20	50.27	47.23	35.95	43.73	--	--	--	--

Sources: 2017 Health Plan Management System (HPMS) Plan Information File, December 2017 file, 2018 HPMS Plan Information File, December 2018 file, 2019 HPMS Plan Information File, December 2019 file, and 2020 HPMS Plan Information File, December 2020 file, accessed in December 2020. 2017 HPMS PDP Plan Service Area File, December 2017 file, 2018 HPMS PDP Plan Service Area File, December 2018 file, 2019 HPMS PDP Plan Service Area File, December 2019 file, and 2020 HPMS PDP Plan Service Area File, December 2020 file, accessed in December 2020. Publicly available 2017-2020 Low-Income Premium Subsidy (LIPS) Amounts from the CMS website for MY 2017: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/RegionalRatesBenchmarks2017.pdf, MY 2018: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/RegionalRatesBenchmarks2018.pdf, MY 2019: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/RegionalRatesBenchmarks2019.pdf, and MY 2020: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/RegionalRatesBenchmarks2020.pdf.

Notes: B: benchmark status; D: de minimis waiver; LIS: low-income subsidy.
In the PDP Region of Florida, the benchmark levels were set at $29.13 in 2017, $29.07 in 2018, $30.25 in 2019, and $28.47 in 2020. In the Northern Plains region (Iowa, Minnesota, Montana, Nebraska, North Dakota, South Dakota, and Wyoming) the levels were set at $34.02 in 2017, $33.99 in 2018, $35.78 in 2019, and $35.37 in 2020. In Louisiana the levels were set at $32.80 in 2017, $30.92 in 2018, $33.06 in 2019, and $32.21 in 2020. In Virginia the levels were set at $32.52 in 2017, $30.05 in 2018, $30.61 in 2019, and $27.88 in 2020. Finally, in Arizona the levels were set at $35.11 in 2017, $32.88 in 2018, $32.61 in 2019, and $32.09 in 2020. PBPs whose premiums are above the regional benchmark and/or do not waive its de minimis amount in specific Model Years are designated by a "--" in each corresponding column.

B.10 Enhanced MTM Eligibility and Service Receipt – Methodology and Supplementary Findings

This section presents additional information about beneficiary eligibility and service receipt for Enhanced MTM, presented in Sections 3 through 5 of the main report.

Section B.10.1 outlines the data and methods used to generate the descriptive statistics presented in Sections 3 through 5 of the main report, as well as in Sections B.10.2 and B.10.3. Section B.10.2 presents supplemental findings on beneficiary eligibility for Enhanced MTM, and Section B.10.3 provides supplemental findings on Enhanced MTM service receipt.

B.10.1 Enhanced MTM Eligibility and Service Receipt: Methods

Beneficiaries are considered eligible for Enhanced MTM if they have at least one record in MARx data (eligible for an intervention) and at least one month of enrollment in the Enhanced MTM plan according to CME in the relevant Model Year (2017, 2018, 2019, or 2020).[13] In addition to all beneficiaries enrolled in Model-participating plans, eligibility and service receipt statistics were also calculated for subgroups of beneficiaries by race, beneficiaries who qualify for LIS, beneficiaries with chronic conditions, and beneficiaries with DTPs. Unlike the subgroups used for analyses of Model impacts (see Section B.2.2), beneficiaries included in subgroups for eligibility and service receipt statistics were not required to belong in the matched analytic sample. Beneficiaries were required to be enrolled in a participating plan in a given Model Year of interest and were selected into subgroups for eligibility and service receipt statistics with indicators that were created using information from the Model Year of interest. Three different racial categories were included in subgroups for eligibility and service receipt statistics: White, Black, or Other race. The Other race category includes Other, Asian, Hispanic, North American Native, and Unknown categories.[14]

General methods for calculating eligibility and service receipt statistics are as follows:

- For eligibility statistics based on MARx and plan enrollment data (Sections 3 through 5 of the main report), the denominator includes beneficiaries who were continuously enrolled in Model-participating PDPs in the Model Year. The numerator includes

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[13] The exception is BCBS NPA, where beneficiary eligibility is defined by the presence of a record in Enhanced MTM Encounter Data and at least one month of enrollment in the BCBS NPA Enhanced MTM plan in the relevant Model Year (2017, 2018, 2019, or 2020). For further information, please refer to "Evaluation of the Part D Enhanced Medication Therapy Management (MTM) Model: Second Evaluation Report" (November 2020), https://innovation.cms.gov/data-and-reports/2020/mtm-secondevalrpt.

[14] Please see Table B.2.13 for the definition of LIS and lists of the chronic conditions and DTPs used for subgroup construction.

beneficiaries with one or more months of Enhanced MTM eligibility in the Model Year in MARx data.

- For eligibility statistics based on intervention-specific eligibility data (Table B.10.3), the denominator includes individuals with one or more months of Enhanced MTM eligibility in MARx data and the sponsor-provided intervention-specific eligibility data in the Model Year. The numerator includes individuals eligible for a specific intervention in the sponsor-provided intervention-specific eligibility data.

- Due to the design flexibility of the Enhanced MTM program, participating sponsors can report service receipt in the Encounter Data using a wide array of Systematized Nomenclature of Medicine – Clinical Terms (SNOMED CT) codes. Moreover, a sponsor is able to add, drop, or alter interventions and services as it deems necessary. To account for these year-to-year fluctuations, an annual review of SNOMED CT codes is conducted and SNOMED CT codes associated with significant services are categorized into 12 intervention categories (Table B.10.9). Service receipt counts and proportions of beneficiaries who receive services are based on this classification system. Only beneficiaries who are considered eligible for services per the methods described above are counted in service receipt calculations.

- Additionally, sponsors used "decline codes" in Encounter Data to indicate whether a beneficiary had declined a specific significant service, opted out of Enhanced MTM services entirely (i.e., declined to be contacted for any future services), or was not responsive to service outreach attempts. Any significant service codes in the Encounter Data that were accompanied by a code that captured decline of service, opt out, or no response to service on the same day were excluded from counts of significant services received.

The eligibility and service receipt statistics presented in evaluation reports are subject to updates in sponsor-submitted data. Sponsors submit updated MARx data on a monthly basis, updated Enhanced MTM Encounter Data on a quarterly basis, and intervention-specific eligibility data on an annual basis. The statistics presented in Sections 3 through 5 of the main report and in this appendix were produced using the most current data available at the time. The statistics generated for Model Years 1 through 3 may differ from previous Evaluation Reports due to sponsors making retroactive updates in data submissions subsequent to previous evaluation reports. To ensure adequate time to analyze data for this report, the evaluation team used updated intervention-specific eligibility files received as of February 2021.

B.10.2 Enhanced MTM Eligibility Supplemental Statistics

This section presents supplemental statistics on beneficiary eligibility for Enhanced MTM to provide more detail for Sections 3 through 5 of the main report and to highlight sponsor-specific findings. It covers sponsor-level Enhanced MTM eligibility, medication utilization targeting, and sponsor-level Enhanced MTM eligibility by LIS status, race, chronic conditions, and DTPs. It also covers traditional MTM eligibility among beneficiaries included in the Enhanced MTM Evaluation comparison group.

Sponsor-level Enhanced and Traditional MTM Eligibility

Modelwide, enrollment in Enhanced MTM participating plans slightly declined in Model Year 4, and although the number of beneficiaries eligible for Enhanced MTM also declined, Enhanced MTM eligibility rates continued their year-over-year increase. At the sponsor level, the nature of the changes in the number and proportion of beneficiaries who were eligible for Enhanced MTM between Model Years 3 and 4 varied (Table B.10.1). All sponsors except BCBS NPA and WellCare had a decrease in the number of eligible beneficiaries in Model Year 4. WellCare had a small increase in the number of eligible beneficiaries that was not proportionate to the more substantial increase in WellCare's plan enrollment. This resulted in a lower eligibility rate that was not attributable to any intervention targeting criteria changes. WellCare was the only sponsor with a substantial decrease in its eligibility rate in Model Year 4 (from 74 percent to 67 percent). The remaining sponsors had mostly stable or higher eligibility rates in Model Year 4.

Eligibility rates for traditional MTM among beneficiaries included in the Enhanced MTM Evaluation comparison group were much lower than eligibility rates for Enhanced MTM among beneficiaries enrolled in participating plans at both the Modelwide and sponsor levels (Table B.10.2). Traditional MTM eligibility rates were highest among the matched comparison group beneficiaries for WellCare and Humana (around 8 percent) and lowest among the comparison group beneficiaries for BCBS NPA and BCBS FL (around 5 percent).

Eligibility rates for specific Enhanced MTM interventions were generally stable between Model Years 3 and 4 for most sponsors and interventions, but the two more dynamic[15] sponsors (BCBS NPA and BCBS FL) saw greater shifts in intervention-specific eligibility (Table B.10.3). Notable intervention-level eligibility changes include decreases in BCBS NPA's High-Risk intervention and BCBS FL's Behavioral Health and Transitions of Care interventions. Increases

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[15] BCBS FL and BCBS NPA are characterized as more dynamic than other sponsors in that over the course of the Model they were more likely to change what interventions they offer, beneficiary targeting criteria, and Enhanced MTM services. These sponsors report approaching the Model as an opportunity to quickly test different strategies, while other sponsors have been more conservative in their changes, and attribute this to a desire to accumulate more data and make adjustments only in cases where cumulative data indicate the need for change.

in eligibility were found for SilverScript/CVS's Health Tag intervention, BCBS NPA's Community Pharmacy Smart Recommendations intervention, and BCBS FL's Medication Adherence and Continuity of Care interventions.

Table B.10.1: Eligibility Rates Increased for Most Sponsors, While Plan Enrollment and Enhanced MTM-Eligible Beneficiaries Declined Between Model Years 3 and 4

Sponsors	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Participating Plan Enrollment	Beneficiaries Eligible for Enhanced MTM (*Proportion Eligible for Enhanced MTM*)	Participating Plan Enrollment	Beneficiaries Eligible for Enhanced MTM (*Proportion Eligible for Enhanced MTM*)	Participating Plan Enrollment	Beneficiaries Eligible for Enhanced MTM (*Proportion Eligible for Enhanced MTM*)	Participating Plan Enrollment	Beneficiaries Eligible for Enhanced MTM (*Proportion Eligible for Enhanced MTM*)
All Participating Sponsors	**1,878,104**	**1,237,540** **(65.9%)**	**1,867,500**	**1,298,762** **(69.5%)**	**1,851,735**	**1,366,826** **(73.8%)**	**1,672,477**	**1,296,246** **(77.5%)**
SilverScript/CVS	794,182	727,108 (91.6%)	1,002,916	869,253 (86.7%)	986,835	887,150 (89.9%)	852,880	815,325 (95.6%)
Humana	457,433	221,644 (48.5%)	287,528	180,158 (62.7%)	255,604	169,920 (66.5%)	226,697	156,908 (69.2%)
BCBS NPA	241,498	50,723 (21.0%)	239,962	49,105 (20.5%)	219,298	73,352 (33.4%)	199,224	86,194 (43.3%)
UnitedHealth	175,930	95,515 (54.3%)	134,273	74,217 (55.3%)	206,163	110,847 (53.8%)	192,719	110,562 (57.4%)
WellCare	155,077	110,455 (71.2%)	150,184	105,954 (70.5%)	132,527	97,878 (73.9%)	148,098	99,754 (67.4%)
BCBS FL	64,631	35,022 (54.2%)	60,859	22,734 (37.4%)	55,977	29,222 (52.2%)	55,887	28,583 (51.1%)

Sources: CME; MARx; and Enhanced MTM Encounter Data.

Notes: Eligible beneficiaries are those with at least one month of recorded eligibility in the Model year in MARx data. The proportion eligible for Enhanced MTM is calculated as the number of beneficiaries eligible for Enhanced MTM divided by the participating plan enrollment and expressed as a percentage.

Table B.10.2: Traditional MTM Eligibility Rates in the Comparison Group Are Much Lower than Enhanced MTM Eligibility Rates in All Model Years

Sponsors	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Count of Comparison Beneficiaries Enrolled in Non-Participating Plans	Number (Proportion) of Beneficiaries Eligible for Traditional MTM	Count of Comparison Beneficiaries Enrolled in Non-Participating Plans	Number (Proportion) of Beneficiaries Eligible for Traditional MTM	Count of Comparison Beneficiaries Enrolled in Non-Participating Plans	Number (Proportion) of Beneficiaries Eligible for Traditional MTM	Count of Comparison Beneficiaries Enrolled in Non-Participating Plans	Number (Proportion) of Beneficiaries Eligible for Traditional MTM
All Participating Sponsors	*2,692,493*	*262,003 (9.7%)*	*2,427,975*	*197,707 (8.1%)*	*2,340,911*	*201,267 (8.6%)*	*2,134,959*	*162,954 (7.6%)*
SilverScript/CVS	1,368,586	147,944 (10.8%)	1,287,319	112,626 (8.8%)	1,158,940	100,786 (8.7%)	1,031,162	77,493 (7.5%)
Humana	745,261	68,829 (9.2%)	604,847	49,230 (8.1%)	512,236	47,235 (9.2%)	451,381	36,721 (8.1%)
BCBS NPA	270,314	15,087 (5.6%)	255,371	11,615 (4.6%)	232,040	11,053 (4.8%)	212,440	9,416 (4.4%)
UnitedHealth	311,768	24,667 (7.9%)	269,104	19,085 (7.1%)	419,231	36,720 (8.8%)	364,187	28,412 (7.8%)
WellCare	406,705	41,347 (10.2%)	369,812	31,014 (8.4%)	303,274	26,298 (8.7%)	302,344	26,062 (8.6%)
BCBS FL	95,249	5,699 (6.0%)	89,438	4,331 (4.8%)	80,492	4,123 (5.1%)	77,656	3,653 (4.7%)

Sources: CME; Part D Reporting Requirements Data.

Notes: Eligible beneficiaries are those with at least one month of recorded eligibility in the Model year in MARx data. The proportion eligible for Enhanced MTM is calculated as the number of beneficiaries eligible for Enhanced MTM divided by the participating plan enrollment and expressed as a percentage. Comparison beneficiaries were selected for each sponsor's comparison group from multiple non-participating plans offering Traditional MTM, and are not restricted to beneficiaries enrolled in the sponsor's plans.

Table B.10.3: BCBS NPA and BCBS FL Experienced Larger Proportional Shifts in Intervention-Specific Eligibility than Other Sponsors

Sponsor and Enhanced MTM Intervention	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Beneficiaries Eligible	Proportion Eligible (%)	Beneficiaries Eligible	Proportion Eligible (%)	Beneficiaries Eligible	Proportion Eligible (%)	Beneficiaries Eligible	Proportion Eligible (%)
All Participating Sponsors	*1,237,540*		*1,298,762*		*1,366,826*		*1,296,246*	
SilverScript/CVS	**727,108**		**869,253**		**887,150**		**815,325**	
Medication Therapy Counseling	39,781	5.5	86,541	10.0	108,041	12.2	94,561	11.6
Specialty Pharmacy Care Management	46,756	6.4	53,632	6.2	35,892	4.0	35,568	4.4
Pharmacy Advisor Counseling	505,099	69.5	634,902	73.0	645,374	72.7	576,069	70.7
HealthTag	630,252	86.7	708,290	81.5	755,636	85.2	768,141	94.2
Long-Term Care	-	-	134	0.0	3,735	0.4	9,232	1.1
Humana	**221,644**		**180,158**		**169,920**		**156,908**	
Risk-Based	195,847	88.4	172,298	95.6	164,467	96.8	155,792	99.3
Transitions of Care Medication Reconciliation	1,304	0.6	3,346	1.9	7,549	4.4	9,368	6.0
BCBS NPA	**50,723**		**49,105**		**73,352**		**86,194**	
High-Risk	50,323	99.2	36,178	73.7	46,525	63.4	42,182	48.9
Prescriber Opioid Education	-	-	9,885	20.1	-	-	-	-
Low-Risk/High-Cost	-	-	9,565	19.5	6,929	9.4	-	-
Community Pharmacy Smart Recommendations	-	-	892	1.8	17,352	23.7	25,188	29.2
Chronic Care Management	-	-	-	-	2,886	3.9	6,619	7.7
Transitions of Care	-	-	-	-	1,240	1.7	1,317	1.5
Safe Opioid Use Assessment	-	-	-	-	-	-	27	0.0
UnitedHealth	**95,515**		**74,217**		**110,847**		**110,562**	
Risk-Based	94,684	99.1	73,542	99.1	109,851	99.1	110,506	99.9
Transitions of Care	3,179	3.3	3,497	4.7	2,993	2.7	2,525	2.3
Medication Adherence Monitoring	-	-	27,632	37.2	32,310	29.1	27,492	24.9

Sponsor and Enhanced MTM Intervention	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Beneficiaries Eligible	Proportion Eligible (%)	Beneficiaries Eligible	Proportion Eligible (%)	Beneficiaries Eligible	Proportion Eligible (%)	Beneficiaries Eligible	Proportion Eligible (%)
WellCare	**110,455**		**105,954**		**97,878**		**99,754**	
Medication Adherence	93,415	84.6	93,531	88.3	92,894	94.9	97,284	97.5
Opioid Utilization	28,739	26.0	23,624	22.3	16,804	17.2	13,551	13.6
Select Drug Therapy Problems	51,216	46.4	58,555	55.3	53,626	54.8	-	-
High Utilizer	13,625	12.3	17,816	16.8	18,787	19.2	20,314	20.4
Hospital Discharge	-	-	-	-	4,557	4.7	7,929	7.9
BCBS FL	**35,022**		**22,734**		**29,222**		**28,583**	
Hospital Prevention	10,524	30.0	3,071	13.5	2,235	7.6	2,611	9.1
Diabetes Plus 3	12,467	35.6	4,916	21.6	4,953	16.9	4,750	16.6
Anticoagulant	5,110	14.6	1,864	8.2	3,206	11.0	3,311	11.6
Specialty Drug	2,036	5.8	79	0.3	70	0.2	-	-
Medication Adherence	17,420	49.7	11,032	48.5	10,503	35.9	17,827	62.4
Transitions of Care	3,240	9.3	5,186	22.8	8,486	29.0	6,021	21.1
Continuity of Care	-	-	5,507	24.2	1,500	5.1	3,223	11.3
Statin Use in Persons with Diabetes	-	-	1,027	4.5	1,240	4.2	1,168	4.1
Behavioral Health	-	-	-	-	9,011	30.8	4,123	14.4

Sources: CME; MARx; Enhanced MTM Encounter Data; intervention-specific eligibility files.

Notes: Cells with "-" signify that the sponsor did not offer the intervention in that Model Year or a consecutive Model Year. The proportion of beneficiaries eligible for a specific intervention is calculated from the sponsor's total number of beneficiaries eligible for Enhanced MTM in each Model Year. Beneficiaries are often eligible for more than one intervention, resulting in a sum of eligible beneficiaries by intervention exceeding the actual total.

Medication Utilization Targeting

Table B.10.4 provides details on the subcategories within the medication utilization targeting category, the largest Modelwide beneficiary targeting category. Among beneficiaries targeted based on medication utilization in Model Year 4, almost all were targeted due to drug therapy problems (DTPs), and 70 percent were targeted based on newly prescribed medications. In Model Year 4, the proportion of beneficiaries targeted based on new medications and number of medications increased. Table B.10.5 displays primary and secondary targeting categories for each intervention, including the medication utilization sub-categories.

Table B.10.4: Among Beneficiaries Primarily Targeted Based on Medication Utilization, the Vast Majority Were Targeted Due to DTPs

Medication Utilization Sub-category	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Interventions within Primary Medication Utilization Category Using Sub-category	Beneficiaries Ever Eligible for Sub-category (Percent Eligible for Sub-category)	Interventions within Primary Medication Utilization Category Using Sub-category	Beneficiaries Ever Eligible for Sub-category (Percent Eligible for Sub-category)	Interventions within Primary Medication Utilization Category Using Sub-category	Beneficiaries Ever Eligible for Sub-category (Percent Eligible for Sub-category)	Interventions within Primary Medication Utilization Category Using Sub-category	Beneficiaries Ever Eligible for Sub-category (Percent Eligible for Sub-category)
All Sponsors	*10*	*974,409*	*14*	*1,032,677*	*13*	*1,085,719*	*11*	*862,419*
DTP	7	962,061 (98.7%)	11	1,027,283 (99.5%)	10	1,083,023 (99.8%)	8	859,739 (99.7%)
New Med	3	511,611 (52.5%)	4	637,727 (61.8%)	4	665,991 (61.3%)	3	604,563 (70.1%)
Number of Meds	1	94,684 (9.7%)	2	74,569 (7.2%)	2	111,091 (10.2%)	2	111,673 (12.9%)
Opioid	1	28,739 (2.9%)	2	33,509 (3.2%)	1	16,804 (1.5%)	2	13,578 (1.6%)

Sources: CME; MARx; Enhanced MTM Encounter Data; intervention-specific eligibility files.

Notes: DTP: targeting based on medication adherence issues, adverse drug reactions/interactions, gaps in care, dosage issues, and/or unnecessary or inappropriate drug therapy; New Med: targeting based on newly prescribed medications; Number of Meds: targeting based on a certain number of medications; Opioid: targeting based on opioid use or misuse. Beneficiaries may be counted for multiple sub-categories since some medication utilization interventions address multiple sub-categories.

Table B.10.5: Enhanced MTM Interventions by Targeting Category and Availability by Model Year

Sponsor and Enhanced MTM Intervention	Model Year 1 (2017)	Model Year 2 (2018)	Model Year 3 (2019)	Model Year 4 (2020)	Primary Targeting Category	Secondary Targeting Categories
SilverScript/CVS						
Pharmacy Advisor Counseling	✓	✓	✓	✓	Med Use (DTP, New Med)	
Medication Therapy Counseling	✓	✓	✓	✓	High Expenditures	Conditions
Long-term Care		✓	✓	✓	High Expenditures	Conditions
Specialty Pharmacy Care Management	✓	✓	✓	✓	Conditions	
HealthTag (vaccine reminder)	✓	✓	✓	✓	Vaccine	
Humana						
Risk-based	✓	✓	✓	✓	High Expenditures	Conditions, Med Use (DTP)
Transitions of Care Medication Reconciliation	✓	✓	✓	✓	Transitions	
BCBS NPA						
High Risk (for multi-drug interactions)	✓	✓	✓	✓	Med Use (DTP)	
Prescriber Opioid Education		✓			Med Use (DTP, Opioid)	
Community Pharmacy Smart Recommendations		✓	✓	✓	Med Use (DTP, New Med)	Vaccine
Safe Opioid Use Assessment				✓	Med Use (Opioid)	
Low-Risk/High Cost		✓	✓		High Expenditures	
Transitions of Care			✓	✓	Transitions	
Chronic Care Management Initiative			✓	✓	Conditions	Med Use (Number of Meds)
UnitedHealth						
Risk-based (for DTPs)	✓	✓	✓	✓	Med Use (DTP, Number of Meds)	Conditions
Medication Adherence Monitoring		✓	✓	✓	Med Use (DTP)	
Transitions of Care	✓	✓	✓	✓	Transitions	
WellCare						
Medication Adherence	✓	✓	✓	✓	Med Use (DTP)	Conditions
Opioid Utilization	✓	✓	✓	✓	Med Use (Opioid)	
Select Drug Therapy Problems	✓	✓	✓		Med Use (DTP)	
High Utilizer	✓	✓	✓		Conditions	Med Use (Number of Meds)
Hospital Discharge			✓	✓	Transitions	
BCBS FL						
Anticoagulant	✓	✓	✓	✓	Med Use (New Med)	
Specialty Drug	✓	✓	✓		Med Use (New Med)	Conditions
Medication Adherence	✓	✓	✓	✓	Med Use (DTP)	

Sponsor and Enhanced MTM Intervention	Model Year 1 (2017)	Model Year 2 (2018)	Model Year 3 (2019)	Model Year 4 (2020)	Primary Targeting Category	Secondary Targeting Categories
Statin Use in Persons with Diabetes		✓	✓	✓	Med Use (DTP, Number of Meds)	Conditions
Hospital Prevention	✓	✓	✓	✓	High Expenditures	Conditions
Continuity of Care		✓	✓	✓	High Expenditures	Conditions, Med Use (DTP, New Med)
Diabetes Plus 3	✓	✓	✓	✓	Conditions	
Behavioral Health			✓	✓	Conditions	Med Use (Number of Meds)
Transitions of Care	✓	✓	✓	✓	Transitions	

Notes: DTP: targeting based on medication adherence issues, adverse drug reactions/interactions, gaps in care, dosage issues, and/or unnecessary or inappropriate drug therapy; New Med: targeting based on newly prescribed medications; Number of Meds: targeting based on a certain number of medications; Opioid: targeting based on opioid use or misuse. Humana's Risk-based intervention fell under the Medication Use primary targeting category in Model Years 1 through 3; however, in Model Year 4, it shifted to the High Expenditures category after Humana made changes to the targeting algorithm for this intervention.

Sponsor-level Enhanced MTM Eligibility by LIS Status, Race, and Chronic Conditions/DTPs

Modelwide, rates of Enhanced MTM eligibility by LIS status were higher than the eligibility rate for all plan enrollees ("all enrollees") in each Model Year, and rates for both groups increased over time. At the sponsor level, as shown in Figure B.10.1, for most sponsors, eligibility rates for LIS beneficiaries were very similar to those for all enrollees. Only two sponsors (BCBS NPA and BCBS FL) had notably higher eligibility rates for LIS beneficiaries compared with all enrollees in most Model Years. As with Modelwide results, for most sponsors, eligibility rates over time for LIS beneficiaries paralleled rates for all enrollees. For BCBS FL, eligibility rates for LIS beneficiaries and all enrollees converged in Model Year 4. The eligibility rate for UnitedHealth's LIS beneficiaries dropped below the eligibility rates for all UnitedHealth enrollees in Model Years 3 and 4, which may be attributable to a change in plan enrollee composition following UnitedHealth's plan consolidation.

Enhanced MTM eligibility rates were somewhat similar across racial groups at the Modelwide level, with rates being highest among Black beneficiaries in all Model Years. At the sponsor level, rates were also fairly similar across racial groups and generally moved in parallel across Model Years, though two sponsors—BCBS FL and BCBS NPA—showed differences (Figure B.10.2). For BCBS FL, Black beneficiaries had higher rates of eligibility compared with White or Other race beneficiaries. For BCBS NPA, higher eligibility rates for Black beneficiaries relative to White or Other race beneficiaries in Model Year 1 eroded in Model Years 2 through 4, during which White beneficiaries had slightly higher eligibility rates compared with Black or Other race beneficiaries.

Medically complex beneficiaries—those with two or more chronic conditions, diabetes, or DTPs—generally had higher eligibility rates when compared with all participating plan enrollees (Figure B.10.3). Rates across the four different groups paralleled each other over time for most sponsors. There were few differences in eligibility rates between those with two or more chronic conditions, diabetes, or DTPs. For BCBS NPA, beneficiaries with diabetes had a slightly lower eligibility rate compared with beneficiaries with two or more chronic conditions or DTPs. For BCBS FL, beneficiaries with diabetes had a slightly higher eligibility rate compared to the other subgroups. In the case of BCBS FL, this finding is consistent with the sponsor offering an intervention that specifically targets beneficiaries with diabetes in all Model Years.
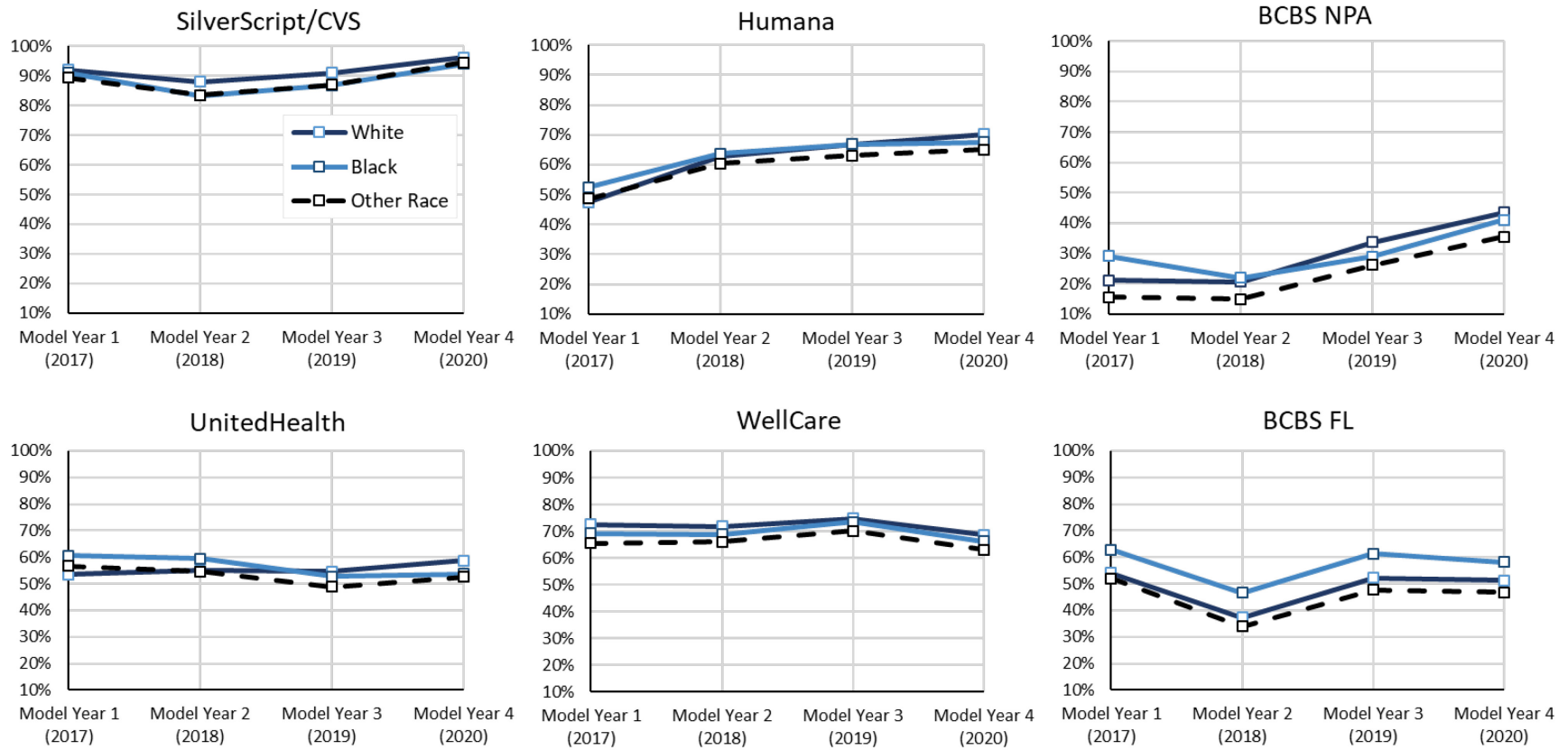
Figure B.10.1: Enhanced MTM Eligibility Rates for LIS Beneficiaries Were Similar to Rates for All Beneficiaries Across Sponsors, Except for BCBS NPA and BCBS FL
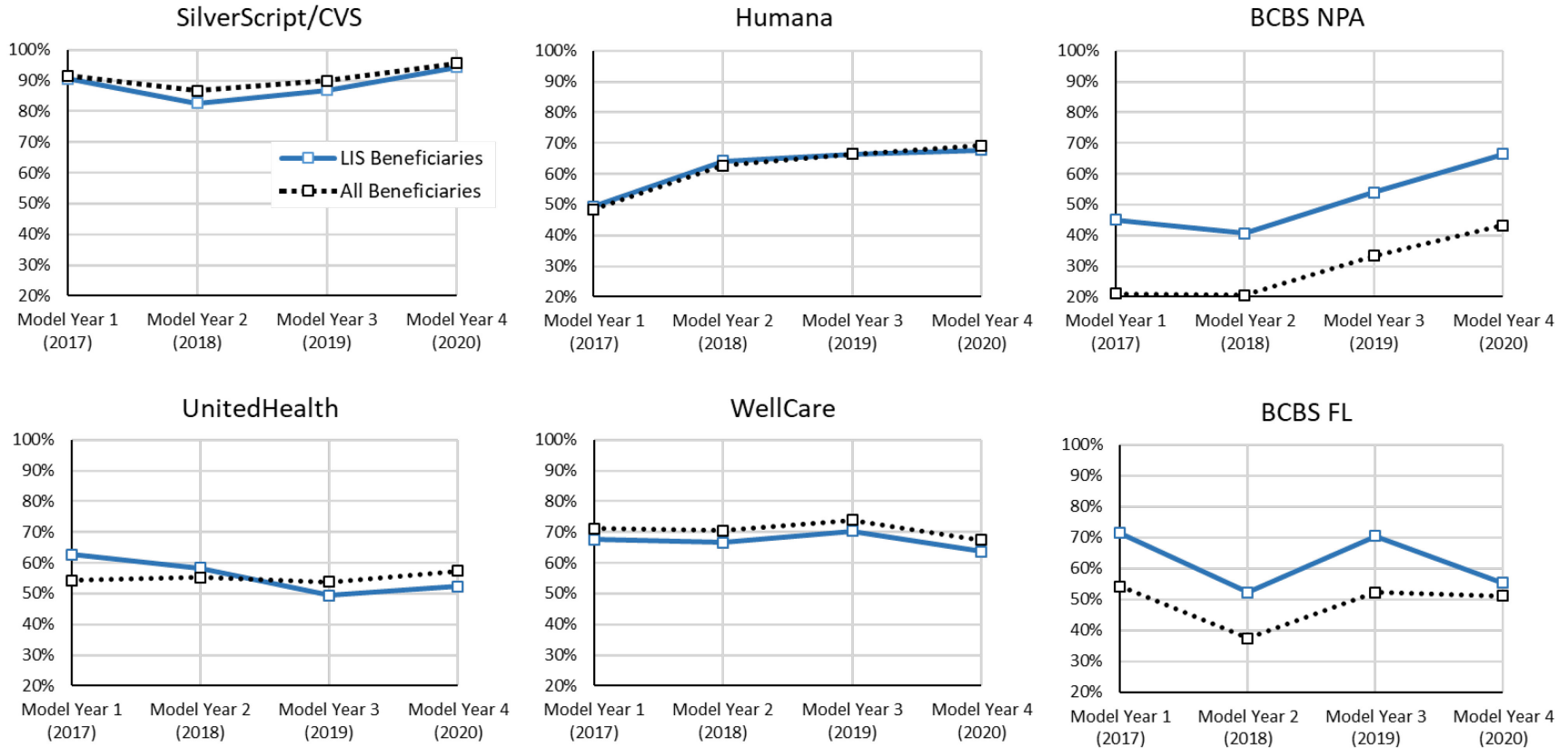
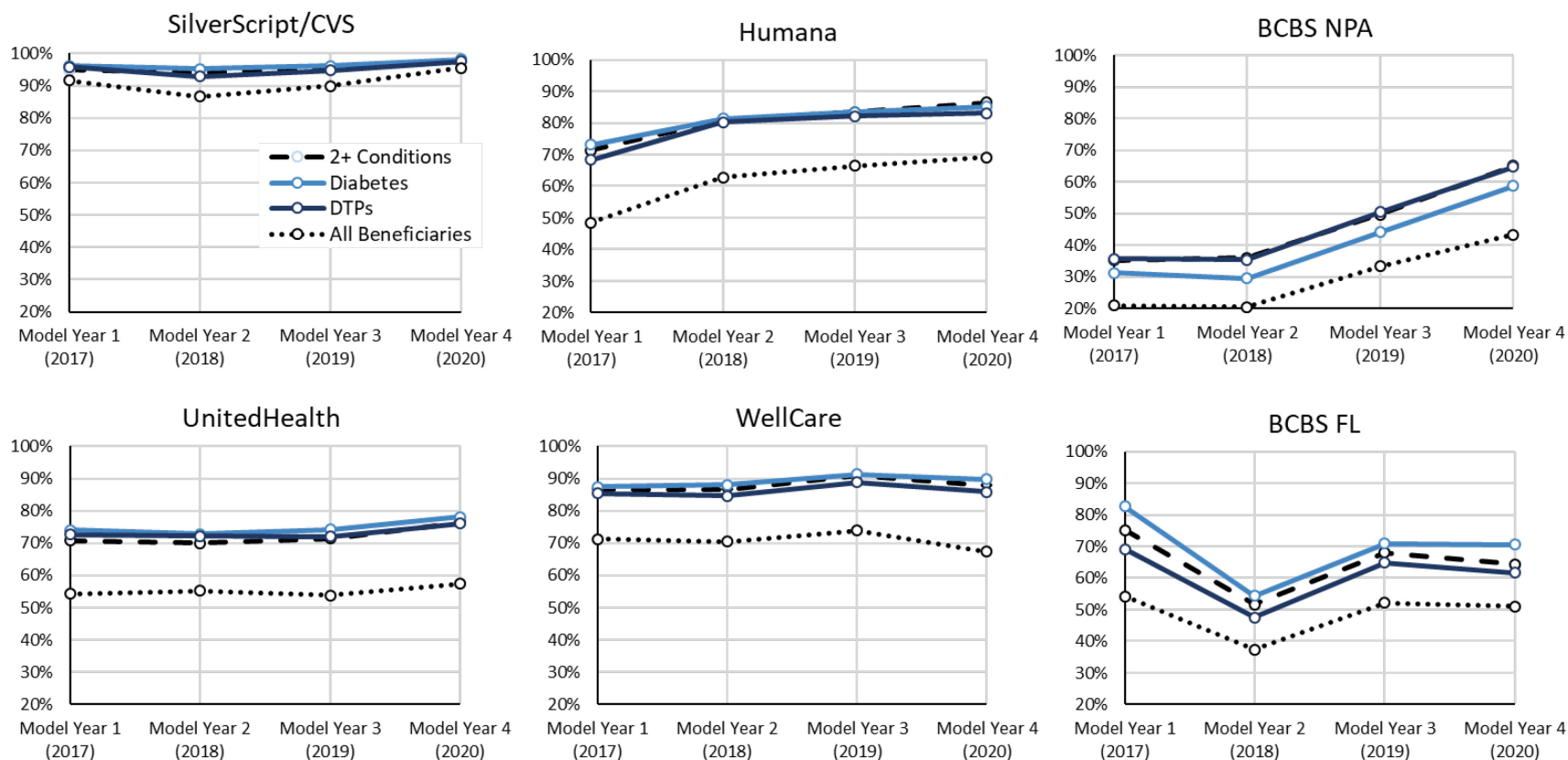Sources: CME; MARx; Enhanced MTM Encounter Data.
Notes: The term "LIS beneficiaries" refers to beneficiaries who receive the low-income subsidy (LIS), and the term "all beneficiaries" refers to the wider population of enrollees in Model-participating plans.

Figure B.10.2: Enhanced MTM Eligibility Rates Were Similar across Racial Groups Except for BCBS FL, Where Black Beneficiaries Had Higher Eligibility Rates

Sources: CME; MARx; Enhanced MTM Encounter Data.

Figure B.10.3: Enhanced MTM Eligibility Rates were Generally Higher for Beneficiaries with Two or More Chronic Conditions, Diabetes, and DTPs Compared with All Beneficiaries

Sources: CME; MARx; Enhanced MTM Encounter Data; CCW; PDE data.

Notes: The term "2+ conditions" refers to beneficiaries with two or more chronic conditions, "diabetes" refers to beneficiaries with diabetes, "DTP" refers to beneficiaries with DTPs, and "all beneficiaries" refers to all enrollees in Model-participating plans.

Traditional MTM Eligibility by LIS Status, Race, and Chronic Conditions/DTPs

Similar to Enhanced MTM, traditional MTM eligibility rates for beneficiaries included in the Enhanced MTM Evaluation comparison group varied by beneficiaries' LIS status, chronic conditions, and DTPs at the Modelwide level (Table B.10.6). Comparison group beneficiaries with LIS status had slightly higher rates of traditional MTM eligibility when compared with all comparison group beneficiaries.

As discussed in Chapter 4, Modelwide eligibility rates were also higher among Enhanced MTM participating plan enrollees with LIS status relative to all participating plan enrollees. Eligibility rates among Enhanced MTM participating plan enrollees with LIS status were substantially higher than rates for comparison group beneficiaries with LIS status. Comparison group beneficiaries with diabetes or two or more chronic conditions had substantially higher traditional MTM eligibility rates than all comparison group beneficiaries, and comparison group beneficiaries with DTPs had slightly higher traditional MTM eligibility rates. The finding on chronic conditions is consistent with targeting criteria for traditional MTM, where a primary requirement is the presence of multiple chronic conditions. Similar to Enhanced MTM, traditional MTM eligibility rates for Black or Other race comparison group beneficiaries were slightly higher than for White comparison beneficiaries at the Modelwide level. For all subgroups, traditional MTM eligibility rates followed a consistent pattern of decreasing in Model Year 2, increasing in Model Year 3, and decreasing again to the lowest level in Model Year 4.

Table B.10.6: Traditional MTM Eligibility Rates Varied in Subgroups Defined by LIS Status, Race, and Chronic Conditions/DTPs

	Model Year 1		Model Year 2		Model Year 3		Model Year 4	
	Comparison Beneficiaries Enrolled in Non-Participating Plans	Comparison Beneficiaries Eligible for Traditional MTM (Traditional MTM Eligibility Rate)	Comparison Beneficiaries Enrolled in Non-Participating Plans	Comparison Beneficiaries Eligible for Traditional MTM (Traditional MTM Eligibility Rate)	Comparison Beneficiaries Enrolled in Non-Participating Plans	Comparison Beneficiaries Eligible for Traditional MTM (Traditional MTM Eligibility Rate)	Comparison Beneficiaries Enrolled in Non-Participating Plans	Comparison Beneficiaries Eligible for Traditional MTM (Traditional MTM Eligibility Rate)
All enrollees	2,692,493	262,003 (9.7%)	2,427,975	197,707 (8.1%)	2,340,911	201,267 (8.6%)	2,134,959	162,954 (7.6%)
LIS beneficiaries	1,508,857	207,599 (13.8%)	1,265,701	149,764 (11.8%)	1,163,300	145,757 (12.5%)	984,496	111,554 (11.3%)
White beneficiaries	2,110,865	199,831 (9.5%)	1,944,623	153,557 (7.9%)	1,894,000	157,192 (8.3%)	1,751,371	128,582 (7.3%)
Black beneficiaries	359,543	39,622 (11.0%)	292,512	28,005 (9.6%)	263,490	27,290 (10.4%)	220,925	20,849 (9.4%)
Other race beneficiaries	222,085	22,550 (10.2%)	190,840	16,145 (8.5%)	183,421	16,785 (9.2%)	162,663	13,523 (8.3%)
Beneficiaries with 2+ chronic conditions	1,081,922	216,334 (20.0%)	943,733	161,732 (17.1%)	881,024	160,016 (18.2%)	781,060	127,391 (16.3%)
Beneficiaries with diabetes	855,643	204,176 (23.9%)	748,110	152,859 (20.4%)	699,290	152,834 (21.9%)	616,552	122,948 (19.9%)
Beneficiaries with DTPs	1,332,795	209,028 (15.7%)	1,182,853	154,424 (13.1%)	1,119,430	152,960 (13.7%)	1,000,885	122,015 (12.2%)

Sources: CME; Part D Reporting Requirements Data.

Notes: Beneficiaries may fall into multiple subgroups. Comparison beneficiaries shown in this table were selected for each sponsor's comparison group from multiple non-participating plans offering Traditional MTM, and are not restricted to beneficiaries enrolled in the sponsor's plans.

B.10.3   Enhanced MTM Service Receipt Supplemental Statistics

This section presents supplemental statistics on Enhanced MTM service receipt, providing more detail for Sections 3 through 5 of the main report and highlighting sponsor-specific findings. Specifically, this section includes sponsor-level information related to receipt of significant Enhanced MTM services, high- and low-intensity services, receipt of select significant services (including CMRs provided under Enhanced and traditional MTM), and service receipt rates for beneficiaries by LIS status, race, and chronic conditions/DTPs.

Sponsor-level Significant Services and Service Receipt Rates

All sponsors had fewer eligible beneficiaries who received significant services in Model Year 4 relative to Model Year 3 (Table B.10.7). All sponsors also had reductions in the proportion of eligible beneficiaries who received significant services except SilverScript/CVS, whose rate increased slightly from 34 percent to 36 percent, which may reflect increases in CMR and TMR receipt rates achieved by CMS during the same time period (discussed later in this section).

Of the 1.7 million significant services provided in Model Year 4, more than 1 million (60 percent) were delivered by SilverScript/CVS (Table B.10.8). Consistent with Modelwide results, among beneficiaries who received significant services, the average number of services provided per beneficiary per year increased for most sponsors except BCBS FL. This overall increase across most sponsors may reflect the higher CMR receipt rate in Model Year 4 (discussed below), because CMRs for the Model tend to be recurrent services that occur multiple times in a given Model Year. In the case of Humana, which discontinued its CMR in Model Year 4, the increase in significant services may be due to its new case/disease management service implemented in Model Year 4, which is offered to beneficiaries up to four times per year.[16] For BCBS FL, the average number of services per beneficiary per year remained high relative to other sponsors but decreased slightly from 6.4 in Model Year 3 to 6.3 in Model Year 4.

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[16] Humana reported that it has seen consistently high service receipt rates for its case/disease management service since implementing the service at the beginning of Model Year 4.

Table B.10.7: The Number and Proportion of Eligible Beneficiaries Receiving Services Declined for Most Sponsors between Model Years 3 and 4

Sponsor	Model Year 1 (2017)			Model Year 2 (2018)			Model Year 3 (2019)			Model Year 4 (2020)		
	Beneficiaries Receiving Significant Services	Proportion Eligible Receiving Significant Services	Proportion Plan Enrollees Receiving Significant Services	Beneficiaries Receiving Significant Services	Proportion Eligible Receiving Significant Services	Proportion Plan Enrollees Receiving Significant Services	Beneficiaries Receiving Significant Services	Proportion Eligible Receiving Significant Services	Proportion Plan Enrollees Receiving Significant Services	Beneficiaries Receiving Significant Services	Proportion Eligible Receiving Significant Services	Proportion Plan Enrollees Receiving Significant Services
All Participating Sponsors	*422,055*	*34.1%*	*22.50%*	*508,013*	*39.1%*	*27.2%*	*552,213*	*40.4%*	*29.8%*	*500,954*	*38.6%*	*30.0%*
SilverScript/ CVS	210,925	29.0%	26.6%	293,279	33.7%	29.2%	299,121	33.7%	30.3%	295,618	36.3%	34.7%
Humana	49,386	22.3%	10.8%	51,455	28.6%	17.9%	46,659	27.5%	18.3%	28,600	18.2%	12.6%
BCBS NPA	15,256	30.1%	6.3%	35,378	72.0%	14.7%	49,390	67.3%	22.5%	44,319	51.4%	22.2%
UnitedHealth	86,550	90.6%	49.2%	67,538	91.0%	50.3%	99,934	90.2%	48.5%	95,322	86.2%	49.5%
WellCare	48,142	43.6%	31.0%	48,033	45.3%	32.0%	40,779	41.7%	30.8%	24,862	24.9%	16.8%
BCBS FL	12,063	34.4%	18.7%	12,591	55.4%	20.7%	16,490	56.4%	29.5%	12,313	43.1%	22.0%

Sources: CME, MARx, and Enhanced MTM Encounter Data.

Notes: Eligible beneficiaries are those with at least one month of recorded eligibility in the Model year in MARx data. The proportion eligible for Enhanced MTM is calculated as the number of beneficiaries eligible for Enhanced MTM divided by the participating plan enrollment and expressed as a percentage.

Table B.10.8: The Average Number of Services Provided per Beneficiary Who Received Services Increased for Most Sponsors in Model Year 4

| Sponsor | Significant Services Delivered (Average Significant Services per Beneficiary Who Received Significant Services) | | | |
	Model Year 1 (2017)	Model Year 2 (2018)	Model Year 3 (2019)	Model Year 4 (2019)
All Participating Sponsors	*1,064,985 (2.5)*	*1,338,284 (2.6)*	*1,443,987 (2.6)*	*1,701,359 (3.4)*
SilverScript/CVS	558,566 (2.6)	745,433 (2.5)	729,635 (2.4)	1,013,967 (3.4)
Humana	104,213 (2.1)	124,899 (2.4)	102,817 (2.2)	105,037 (3.7)
BCBS NPA	42,460 (2.8)	73,403 (2.1)	147,938 (3.0)	161,074 (3.6)
UnitedHealth	203,868 (2.4)	165,197 (2.4)	236,936 (2.4)	240,537 (2.5)
WellCare	118,104 (2.5)	131,369 (2.7)	121,703 (3.0)	102,929 (4.1)
BCBS FL	37,774 (3.1)	97,983 (7.8)	104,958 (6.4)	77,815 (6.3)

Sources: CME, MARx, and Enhanced MTM Encounter Data.
Notes: Eligible beneficiaries are those with at least one month of recorded eligibility in the Model year in MARx data. The proportion eligible for Enhanced MTM is calculated as the number of beneficiaries eligible for Enhanced MTM divided by the participating plan enrollment and expressed as a percentage.

High- and Low-intensity Services

Services are classified as "high-intensity" when they involve interactive engagement between beneficiaries and Enhanced MTM providers and "low-intensity" when a service is prescriber-facing or includes non-interactive education and reminders tailored to beneficiaries (Table B.10.9). Between Model Years 3 and 4, most sponsors experienced declines in the proportion of eligible beneficiaries receiving high-intensity services (Table B.10.10). Only SilverScript/CVS experienced an increase in the proportion of beneficiaries receiving high-intensity services. For low-intensity services, some sponsors had higher proportions of beneficiaries who received these services in Model Year 4 relative to Model Year 3, while other sponsors had decreases. The proportion of beneficiaries receiving low-intensity services increased for SilverScript/CVS and Humana but decreased for BCBS NPA, WellCare, and BCBS FL.

Table B.10.9: The 12 Types of Significant Services Were Either High- or Low-intensity

	Significant Service Category	Significant Service Description	Level of Intensity
Comprehensive Medication Review (CMR) Categories			
1	CMR	An interactive, beneficiary-facing service to comprehensively and systematically review a beneficiary's medication regimen and identify and develop a plan to address medication-related problems	High
2	Transitions of care (CMR)	A similar service to regular CMR but with a focus on identifying and addressing medication-related problems that occur after a beneficiary is discharged from the hospital	High
Medication Reconciliation Categories			
3	Medication reconciliation	An interactive, beneficiary-facing service, separate from a CMR, to ensure the sponsor's record of beneficiary medications is current	High
4	Transitions of care (medication reconciliation)	A similar service to a regular medication reconciliation but with a focus on capturing medication changes that occurred as a result of a hospitalization	High
Targeted Medication Review (TMR) Categories			
5	TMR (beneficiary)	A focused, beneficiary-facing service to address specific, pre-identified medication issues	High
6	TMR (prescriber)	A focused, provider-facing service to address specific, pre-identified medication issues	Low
7	Transitions of care (prescriber-facing)	A focused, prescriber-facing service to address a specific medication issue or issues that arise after a beneficiary is discharged from the hospital	Low
Medication Adherence Categories			
8	Medication adherence (pharmacist)	An interactive, beneficiary-facing service to investigate and address beneficiary non-adherence or risk for non-adherence to medications	High
9	Medication adherence (automated)	A beneficiary-facing service that involves automated contact, such as refill reminders, through Interactive Voice Response (IVR)	Low
Other Service Categories			
10	Cost-sharing and social support	Beneficiary-facing services to address cost or social issues that affect a beneficiary's ability to obtain and/or adhere to medications	High
11	Case/disease management	An interactive, beneficiary-facing service to support beneficiaries in controlling their disease state(s) and/or coordinate care across multiple healthcare entities	High
12	Immunization assessment, reminder, and administration	Beneficiary-facing services that involve assessing the need for, providing reminders or information about, and/or administering vaccines	Low

Table B.10.10: The Proportion of Eligible Beneficiaries Receiving High-intensity Services Declined for Most Sponsors between Model Years 3 and 4

Sponsors	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Number (Proportion) of Eligible Beneficiaries Receiving Low-Intensity Services	Number (Proportion) of Eligible Beneficiaries Receiving High-Intensity Services	Number (Proportion) of Eligible Beneficiaries Receiving Low-Intensity Services	Number (Proportion) of Eligible Beneficiaries Receiving High-Intensity Services	Number (Proportion) of Eligible Beneficiaries Receiving Low-Intensity Services	Number (Proportion) of Eligible Beneficiaries Receiving High-Intensity Services	Number (Proportion) of Eligible Beneficiaries Receiving Low-Intensity Services	Number (Proportion) of Eligible Beneficiaries Receiving High-Intensity Services
All Participating Sponsors	*195,393 (15.8%)*	*294,781 (23.8%)*	*248,707 (19.1%)*	*363,641 (28.0%)*	*294,249 (21.5%)*	*375,932 (27.5%)*	*293,754 (22.7%)*	*338,28 (26.1%)*
SilverScript/CVS	116,684 (16.0%)	153,054 (21.0%)	154,640 (17.8%)	221,184 (25.4%)	176,190 (19.9%)	211,181 (23.8%)	185,840 (22.8%)	204,185 (25.0%)
Humana	5,835 (2.6%)	47,866 (21.6%)	4,502 (2.5%)	50,702 (28.1%)	2,974 (1.8%)	46,139 (27.2%)	4,873 (3.1%)	27,297 (17.4%)
BCBS NPA	NA	15,256 (30.1%)	20,387 (41.5%)	19,978 (40.7%)	28,907 (39.4%)	32,603 (44.4%)	23,380 (27.1%)	35,647 (41.4%)
UnitedHealth	46,948 (49.2%)	41,072 (43.0%)	43,552 (58.7%)	32,064 (43.2%)	62,644 (56.5%)	44,731 (40.4%)	61,443 (55.6%)	40,641 (36.8%)
WellCare	24,172 (21.9%)	26,595 (24.1%)	22,009 (20.8%)	29,042 (27.4%)	16,420 (16.8%)	27,762 (28.4%)	13,036 (13.1%)	19,802 (19.9%)
BCBS FL	1,792 (5.1%)	11,084 (31.6%)	3,643 (16.0%)	10,827 (47.6%)	7,129 (24.4%)	13,620 (46.6%)	5,197 (18.2%)	10,753 (37.6%)

Sources: MARx; Enhanced MTM Encounter Data; intervention-specific eligibility files.

Notes: Eligible beneficiaries are those with at least one month of recorded eligibility in the Model year in MARx data. The proportion eligible for Enhanced MTM is calculated as the number of beneficiaries eligible for Enhanced MTM divided by the participating plan enrollment and expressed as a percentage. Cells with NA signify that the sponsor did not offer the service intensity type.

Service Receipt Detail for Select Significant Services

The number of beneficiaries who were eligible for a CMR decreased between Model Years 3 and 4 for all sponsors except WellCare. However, for all sponsors, except UnitedHealth and Humana, there were increases in the proportion of eligible beneficiaries who received a CMR during the same time period (Table B.10.11). The CMR receipt rate for Humana was not available for Model Year 4 since Humana discontinued its CMR at the beginning of Model Year 4. Both the Modelwide and sponsor-specific increases in the proportion of eligible beneficiaries receiving a CMR are consistent with sponsor reports that beneficiaries were generally more likely to respond to outreach and accept a CMR in Model Year 4 during the public health emergency (PHE). Similarly, rates of CMR receipt among comparison group beneficiaries who are eligible for traditional MTM also increased (Table B.10.12). The CMR receipt rates among the comparison group beneficiaries for all sponsors were either maintained or increased between Model Years 3 and 4.

Sponsors varied widely in TMR receipt rates, and some sponsors had increases in rates while others had decreases between Model Years 3 and 4 (Table B.10.13). WellCare had a substantial drop in eligible beneficiaries who were eligible for a TMR between Model Years 3 and 4 resulting in higher service receipt rates. There was also a substantial drop in the proportion of eligible beneficiaries who received a TMR for BCBS NPA between Model Years 3 and 4 (from 57 percent to 35 percent). This decrease aligns with reports from BCBS NPA that community pharmacists, who primarily deliver BCBS NPA's TMRs, had lower levels of Enhanced MTM service completion in the second half of Model Year 4 because they needed to balance many competing priorities (COVID-19 testing, vaccinations, etc.) related to the PHE.

As shown in Figure B.10.4, for half of the sponsors in Model Year 4, the proportion of eligible beneficiaries receiving prescriber-facing TMRs was higher than the proportion of eligible beneficiaries receiving beneficiary-facing TMRs. Differences in the proportion of beneficiaries who received prescriber- and beneficiary-facing TMRs were due to differences in intervention design. SilverScript/CVS and Humana provide primarily beneficiary-facing TMRs, while WellCare and BCBS FL provide primarily prescriber-facing TMRs. BCBS NPA historically provided more prescriber-facing than beneficiary-facing TMRs, but this trend reversed in Model Year 4.

Counts and rates of transitions-of-care services decreased substantially between Model Years 3 and 4 at the Modelwide level and for two of the five sponsors offering these services (Table B.10.14). WellCare and Humana had substantial increases in the number of beneficiaries eligible for transitions-of-care services. The remaining sponsors had mostly stable or lower numbers of eligible beneficiaries in Model Year 4. As noted in Section 3, these decreases are consistent with lower use of elective hospital services during the PHE.

As with transitions-of-care services, beneficiary eligibility for and completion of adherence services in Model Year 4 did not continue the upward trend from previous Model Years (Table B.10.15). Of the four sponsors offering adherence services, three (BCBS NPA, WellCare, and BCBS FL) had fewer beneficiaries eligible for adherence services and lower rates of service completion. UnitedHealth was the only sponsor whose service receipt rate was higher in Model Year 4, although the number of eligible beneficiaries decreased slightly between Model Year 3 and Model Year 4. Of note, UnitedHealth's adherence service is entirely automated.

Table B.10.11: CMR Receipt Rates Increased in Model Year 4 for Most Sponsors

Sponsor	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Beneficiaries Eligible for CMR	Number (Proportion) of Eligible Beneficiaries Receiving a CMR	Beneficiaries Eligible for CMR	Number (Proportion) of Eligible Beneficiaries Receiving a CMR	Beneficiaries Eligible for CMR	Number (Proportion) of Eligible Beneficiaries Receiving a CMR	Beneficiaries Eligible for CMR	Number (Proportion) of Eligible Beneficiaries Receiving a CMR
All Participating Sponsors	*229,513*	*67,336 (29.3%)*	*268,042*	*91,356 (34.1%)*	*324,772*	*103,539 (31.9%)*	*241,219*	*96,332 (39.9%)*
SilverScript/CVS	39,781	9,162 (23.0%)	86,675	21,505 (24.8%)	111,763	20,057 (17.9%)	102,358	38,806 (37.9%)
Humana	43,634	16,433 (37.7%)	54,399	22,711 (41.7%)	56,378	24,838 (44.1%)	NA	NA
BCBS NPA	50,323	14,336 (28.5%)	45,739	18,899 (41.3%)	53,435	23,514 (44.0%)	42,182	23,854 (56.6%)
UnitedHealth	47,551	14,413 (30.3%)	37,132	12,092 (32.6%)	52,891	15,792 (29.9%)	48,295	13,065 (27.1%)
WellCare	24,809	5,216 (21.0%)	28,625	7,845 (27.4%)	31,039	9,617 (31.0%)	33,636	11,957 (35.5%)
BCBS FL	23,415	7,776 (33.2%)	15,472	8,304 (53.7%)	19,266	9,721 (50.5%)	14,748	8,650 (58.7%)

Sources: MARx; Enhanced MTM Encounter Data; intervention-specific eligibility files.
Notes: Beneficiaries could decline specific services, and when possible, counts exclude records associated with a service decline or failed outreach attempt. Eligible beneficiaries are those with program-specific flags in the supplemental data received from sponsors. Cells with NA signify that the sponsor did not offer the service.

Table B.10.12: Rates of Traditional MTM Beneficiaries Receiving CMRs Have Increased Over Time for Most Sponsors

Sponsor	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Traditional MTM Comparison Beneficiaries Who Received a CMR	Proportion of Traditional MTM Comparison Beneficiaries Who Received a CMR	Traditional MTM Comparison Beneficiaries Who Received a CMR	Proportion of Traditional MTM Comparison Beneficiaries Who Received a CMR	Traditional MTM Comparison Beneficiaries Who Received a CMR	Proportion of Traditional MTM Comparison Beneficiaries Who Received a CMR	Traditional MTM Comparison Beneficiaries Who Received a CMR	Proportion of Traditional MTM Comparison Beneficiaries Who Received a CMR
All Participating Sponsors	*66,892*	*25.5%*	*63,844*	*32.3%*	*76,297*	*37.9%*	*66,625*	*40.9%*
SilverScript/CVS	37,782	25.5%	37,272	33.1%	40,849	40.5%	34,349	44.3%
Humana	16,771	24.4%	14,651	29.8%	15,526	32.9%	13,056	35.6%
BCBS NPA	4,740	31.4%	4,407	37.9%	4,928	44.6%	4,272	45.4%
UnitedHealth	6,359	25.8%	5,596	29.3%	12,409	33.8%	10,150	35.7%
WellCare	10,697	25.9%	10,420	33.6%	10,736	40.8%	11,093	42.6%
BCBS FL	1,660	29.1%	1,715	39.6%	1,907	46.3%	1,691	46.3%

Sources: CME; Part D Reporting Requirements Data. Comparison beneficiaries were selected for each sponsor's comparison group from multiple non-participating plans offering Traditional MTM, and are not restricted to beneficiaries enrolled in the sponsor's plans.

Table B.10.13: Sponsors Vary Widely in TMR Receipt Rates and Changes between Model Years 3 and 4

Sponsor	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Beneficiaries Eligible for TMR	Number (Proportion) of Eligible Beneficiaries Receiving a TMR	Beneficiaries Eligible for TMR	Number (Proportion) of Eligible Beneficiaries Receiving a TMR	Beneficiaries Eligible for TMR	Number (Proportion) of Eligible Beneficiaries Receiving a TMR	Beneficiaries Eligible for TMR	Number (Proportion) of Eligible Beneficiaries Receiving a TMR
All Participating Sponsors	*857,351*	*205,678 (24.0%)*	*989,891*	*257,577 (26.0%)*	*1,039,546*	*289,622 (27.9%)*	*912,768*	*279,820 (30.7%)*
SilverScript/CVS	505,099	78,672 (15.6%)	644,491	124,680 (19.3%)	657,397	129,625 (19.7%)	586,297	150,784 (25.7%)
Humana	189,926	19,609 (10.3%)	165,151	26,620 (16.1%)	158,209	20,585 (13.0%)	150,409	15,578 (10.4%)
BCBS NPA	NA	NA	36,347	20,177 (55.5%)	52,854	30,296 (57.3%)	50,754	17,544 (34.6%)
UnitedHealth	94,707	83,677 (88.4%)	73,542	63,297 (86.1%)	109,851	91,370 (83.2%)	110,506	87,677 (79.3%)
WellCare	67,619	23,720 (35.1%)	69,312	21,839 (31.5%)	59,741	16,293 (27.3%)	13,551	6,996 (51.6%)
BCBS FL	NA	NA	1,048	964 (92.0%)	1,494	1,453 (97.3%)	1,251	1,241 (99.2%)

Sources: MARx; Enhanced MTM Encounter Data; intervention-specific eligibility files.

Notes: Beneficiaries could decline specific services, and when possible, counts exclude records associated with a service decline or failed outreach attempt. Eligible beneficiaries are those with program-specific flags in the supplemental data received from sponsors. Cells with NA signify that the sponsor did not offer the service.

Figure B.10.4: The Proportion of Eligible Beneficiaries Receiving Prescriber- and Beneficiary-Facing TMRs Varied by Sponsor Due to Intervention Design
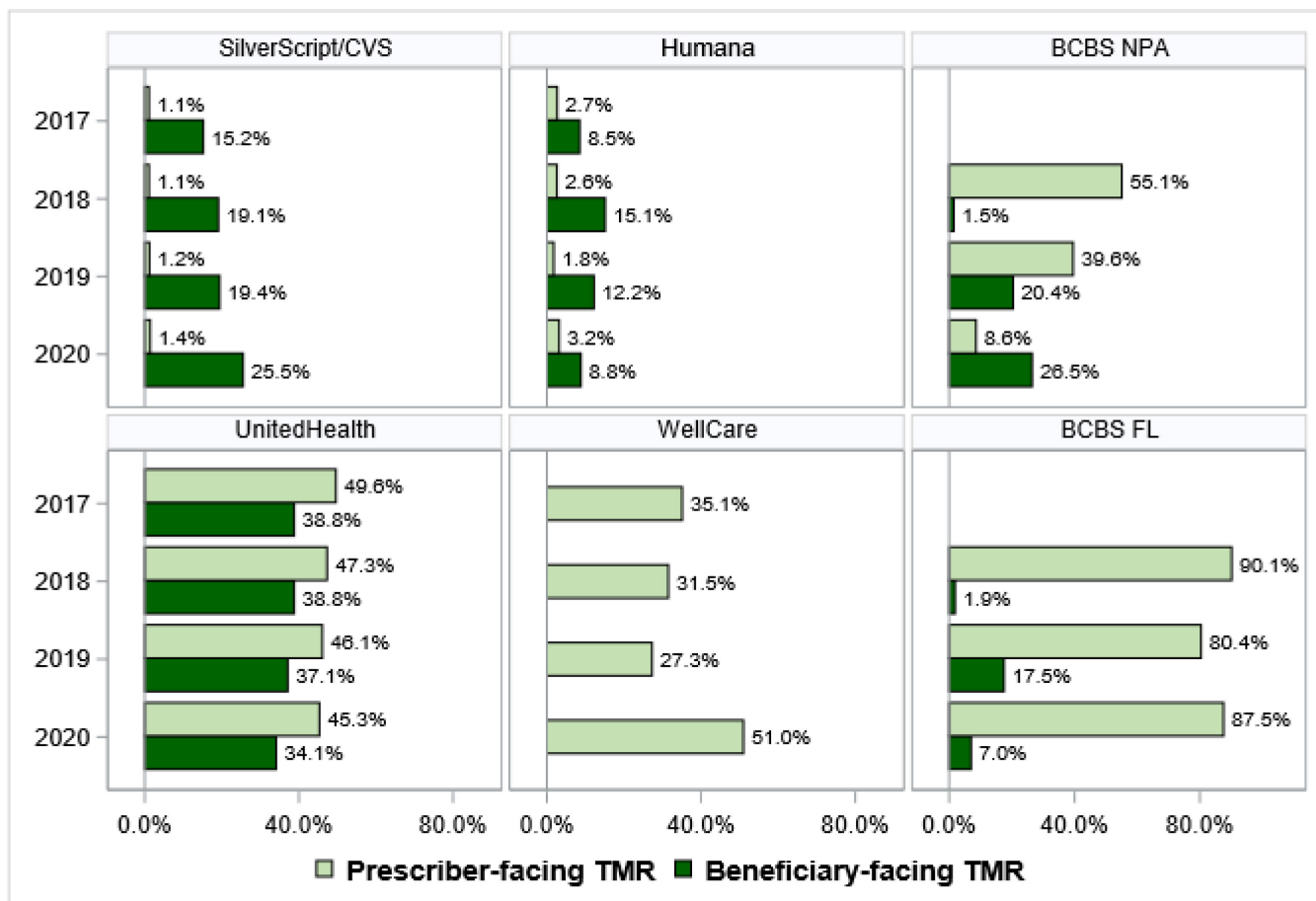
Sources: MARx; Enhanced MTM Encounter Data; intervention-specific eligibility files.
Notes: Bars do not appear in Model Year 1 for BCBS FL and BCBS NPA because neither sponsor offered a TMR in Model Year 1.

Table B.10.14: Counts and Rates of Transitions-of-Care Services Decreased for Two Sponsors between Model Years 3 and 4

Sponsor	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Beneficiaries Eligible for Transitions Services	Number (Proportion) of Eligible Beneficiaries Receiving a Transition Service	Beneficiaries Eligible for Transitions Services	Number (Proportion) of Eligible Beneficiaries Receiving a Transition Service	Beneficiaries Eligible for Transitions Services	Number (Proportion) of Eligible Beneficiaries Receiving a Transition Service	Beneficiaries Eligible for Transitions Services	Number (Proportion) of Eligible Beneficiaries Receiving a Transition Service
All Participating Sponsors	*7,728*	*4,796 (62.1%)*	*12,081*	*7,314 (60.5%)*	*24,837*	*12,420 (50.0%)*	*27,161*	*9,862 (36.3%)*
Humana	1,304	45 (3.5%)	3,351	1,081 (32.3%)	7,561	1,191 (15.8%)	9,368	1,467 (15.7%)
BCBS NPA	NA	NA	NA	NA	1,240	715 (57.7%)	1,317	765 (58.1%)
UnitedHealth	3,184	2,285 (71.8%)	3,497	1,970 (56.3%)	2,993	1,808 (60.4%)	2,526	1,308 (51.8%)
WellCare	NA	NA	NA	NA	4,557	1,510 (33.1%)	7,929	2,659 (33.5%)
BCBS FL	3,240	2,466 (76.1%)	5,233	4,263 (81.5%)	8,486	7,196 (84.8%)	6,021	3,663 (60.8%)

Sources: MARx; Enhanced MTM Encounter Data; intervention-specific eligibility files.

Notes: All counts exclude records associated with a service decline or failed outreach attempt. Eligible beneficiaries are those with program-specific flags in the supplemental data received from sponsors. Cells with NA signify that the sponsor did not offer the service in a specific Model Year. SilverScript/CVS did not offer a Transition-of-Care service.

Table B.10.15: Three of Four Sponsors Offering Adherence Services Had Fewer Eligible Beneficiaries and Lower Service Receipt Rates in Model Year 4

Sponsor	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Beneficiaries Eligible for Adherence Services	Number (Proportion) of Eligible Beneficiaries Receiving an Adherence Service	Beneficiaries Eligible for Adherence Services	Number (Proportion) of Eligible Beneficiaries Receiving an Adherence Service	Beneficiaries Eligible for Adherence Services	Number (Proportion) of Eligible Beneficiaries Receiving an Adherence Service	Beneficiaries Eligible for Adherence Services	Number (Proportion) of Eligible Beneficiaries Receiving an Adherence Service
All Participating Sponsors	*85,674*	*29,156 (34.0%)*	*108,873*	*46,490 (42.7%)*	*117,902*	*51,666 (43.8%)*	*113,770*	*37,339 (32.8%)*
BCBS NPA	NA	NA	795	347 (43.6%)	8,308	5,100 (61.4%)	3,142	1,335 (42.5%)
UnitedHealth	NA	NA	27,632	17,071 (61.8%)	32,310	20,094 (62.2%)	27,513	19,144 (69.6%)
WellCare	68,254	23,971 (35.1%)	69,414	25,366 (36.5%)	66,781	22,713 (34.0%)	65,288	14,604 (22.4%)
BCBS FL	17,420	5,185 (29.8%)	11,032	3,706 (33.6%)	10,503	3,759 (35.8%)	17,827	2,256 (12.7%)

Sources: MARx; Enhanced MTM Encounter Data; intervention-specific eligibility files.

Notes: Cells with NA signify that the sponsor did not offer an adherence intervention in a specific Model Year; only discrete medication adherence interventions for which eligible beneficiaries were identified in the intervention-level eligibility data received from sponsors are included in this table. SilverScript/CVS and Humana did not offer adherence interventions. UnitedHealth reported that 2,307 beneficiaries who received an adherence service in 2018 were not reported as eligible in MARx Enhanced MTM eligibility data and were thus excluded from these statistics.

Modelwide Significant Service and CMR Receipt Rates for All Participating Plan Enrollees by LIS Status, Race, and Chronic Conditions/DTPs

As discussed in Section 4 of the main report, at the Modelwide level, similar to trends seen among eligible LIS beneficiaries, significant service receipt rates among all LIS beneficiaries in participating plans were lower than significant service receipt rates among all participating plan enrollees in all Model Years (Table B.10.16). Among the three race categories, significant service receipt rates among all White beneficiaries were similar to rates among all participating plan enrollees in all Model Years; rates were generally lower for all Black or Other race beneficiaries. Significant service receipt rates among all medically complex beneficiaries included in the three subgroups (beneficiaries with two or more chronic conditions, diabetes, or DTPs) were higher than receipt rates among all participating plan enrollees in all Model Years.

Among all plan enrollees and subgroups, CMR receipt rates at the Modelwide level followed similar patterns to significant service receipt rates across Model Years. All LIS beneficiaries in participating plans had lower CMR receipt rates than all participating plan enrollees (Table B.10.17). Among the three race categories, CMR receipt rates among White beneficiaries were slightly higher than receipt rates among all participating plan enrollees, while rates were lower for Black or Other race beneficiaries. For all three medically complex beneficiary subgroups, CMR receipt rates were higher than receipt rates among all participating plan enrollees in all Model Years.

Table B.10.16: Significant Service Receipt Rates Were Lower among LIS, Black, and Other Race Beneficiaries, and Higher among Medically Complex Beneficiaries Relative to All Participating Plan Enrollees

Beneficiary Subgroup	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Participating Plan Enrollees in Subgroup	Number (Proportion) of Subgroup Beneficiaries Receiving a Significant Service	Participating Plan Enrollees in Subgroup	Number (Proportion) of Subgroup Beneficiaries Receiving a Significant Service	Participating Plan Enrollees in Subgroup	Number (Proportion) of Subgroup Beneficiaries Receiving a Significant Service	Participating Plan Enrollees in Subgroup	Number (Proportion) of Subgroup Beneficiaries Receiving a Significant Service
All Participating Plan Enrollees	1,878,104	422,055 (22.5%)	1,867,500	508,013 (27.2%)	1,851,735	552,213 (30.0%)	1,672,477	500,954 (30.0%)
LIS beneficiaries	923,768	179,683 (19.5%)	892,078	197,314 (22.1%)	898,462	215,628 (24.0%)	819,547	193,687 (23.6%)
White beneficiaries	1,465,634	330,620 (22.6%)	1,464,272	407,110 (27.8%)	1,445,007	441,906 (30.6%)	1,301,274	400,582 (30.8)%
Black beneficiaries	229,195	53,692 (23.4%)	222,039	56,370 (25.4%)	221,529	61,116 (27.6%)	200,208	53,953 (27.0%)
Other race beneficiaries	183,275	37,743 (20.6%)	181,189	44,533 (24.6%)	185,199	49,191 (26.6)%	170,995	46,419 (27.2%)
Beneficiaries with 2+ chronic conditions	736,948	232,056 (31.5%)	742,097	275,504 (37.1%)	748,838	302,239 (40.4%)	628,063	254,046 (40.5%)
Beneficiaries with diabetes	566,573	194,958 (34.4%)	561,735	215,843 (38.4%)	556,895	228,910 (41.1%)	446,190	183,817 (41.2%)
Beneficiaries with DTPs	823,948	248,501 (30.2%)	814,369	291,582 (36.0%)	807,821	315,219 (39.0%)	722,572	276,051 (38.2%)

Sources: CME; MARx; Enhanced MTM Encounter Data;
Notes: Beneficiaries may fall into multiple subgroups.

Table B.10.17: CMR Receipt Rates Were Lower among LIS, Black, and Other Race Beneficiaries, and Higher among Medically Complex Beneficiaries Relative to All Participating Plan Enrollees

Beneficiary Subgroup	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Participating Plan Enrollees in Subgroup	Number (Proportion) of Subgroup Beneficiaries Receiving a CMR	Participating Plan Enrollees in Subgroup	Number (Proportion) of Subgroup Beneficiaries Receiving a CMR	Participating Plan Enrollees in Subgroup	Number (Proportion) of Subgroup Beneficiaries Receiving a CMR	Participating Plan Enrollees in Subgroup	Number (Proportion) of Subgroup Beneficiaries Receiving a CMR
All Participating Plan Enrollees	1,878,104	67,336 (3.6%)	1,867,500	91,356 (4.9%)	1,851,735	103,539 (5.6%)	1,672,477	96,332 (5.8%)
LIS beneficiaries	923,768	29,055 (3.1%)	892,078	34,537 (3.9%)	898,462	41,036 (4.6%)	819,547	32,750 (4.0%)
White beneficiaries	1,465,634	54,999 (3.8%)	1,464,272	77,769 (5.3%)	1,445,007	87,766 (6.1%)	1,301,274	82,268 (6.3%)
Black beneficiaries	229,195	7,569 (3.3%)	222,039	8,260 (3.7%)	221,529	9,431 (4.3%)	200,208	7,848 (3.9%)
Other race beneficiaries	183,275	4,768 (2.6%)	181,189	5,327 (2.9%)	185,199	6,342 (3.4%)	170,995	6,216 (3.6%)
Beneficiaries with 2+ chronic conditions	736,948	49,076 (6.7%)	742,097	64,867 (8.7%)	748,838	72,683 (9.7%)	628,063	65,309 (10.4%)
Beneficiaries with diabetes	566,573	37,915 (6.7%)	561,735	46,537 (8.3%)	556,895	49,963 (9.0%)	446,190	42,799 (9.6%)
Beneficiaries with DTPs	823,948	47,798 (5.8%)	814,369	62,679 (7.7%)	807,821	70,124 (8.7%)	722,572	65,249 (9.0%)

Sources: CME; MARx; Enhanced MTM Encounter Data;
Notes: Beneficiaries may fall into multiple subgroups.

Sponsor-level Service Receipt Rates by LIS Status, Race, and Chronic Conditions/DTPs

As discussed in Section 4 of the main report, at the Modelwide level eligible LIS beneficiaries were less likely to receive significant services when compared with all eligible beneficiaries. Qualitative information collected from sponsors over the course of the Model suggests that sponsors have found it more difficult to contact and complete services with LIS beneficiaries. Sponsors have encountered difficulties with obtaining accurate contact information for LIS beneficiaries and reported that LIS beneficiaries are more difficult to reach or are uninterested in Enhanced MTM services. As shown in Figure B.10.5, not all sponsors experienced the Modelwide trend. Humana, UnitedHealth, WellCare, and BCBS NPA have very similar significant service receipt rates for their eligible LIS beneficiaries and all their eligible beneficiaries. SilverScript/CVS had consistently lower significant service receipt rates among its eligible LIS beneficiaries relative to all its eligible beneficiaries, driving the Modelwide trend. For BCBS FL, significant service receipt rates were also lower among eligible LIS beneficiaries than all eligible beneficiaries in Model Years 1 through 3, but the rates converged in Model Year 4.

There were few differences in significant service receipt rates by race (Figure B.10.6). For two sponsors (WellCare and BCBS FL), significant service receipt rates were slightly lower for Other race beneficiaries when compared with Black or White beneficiaries. For BCBS FL, Black beneficiaries had the highest significant service receipt rates, though the differences across race categories were not large.

For most sponsors, significant service receipt rates were slightly lower among all eligible beneficiaries when compared with eligible medically complex beneficiaries— those with two or more chronic conditions, diabetes, or DTPs (Figure B.10.7). UnitedHealth and BCBS NPA had more similar significant service receipt rates for all eligible beneficiaries and those with two or more chronic conditions, diabetes, and DTPs. Service receipt rates were generally similar across the condition subgroups (two or more chronic conditions and diabetes).
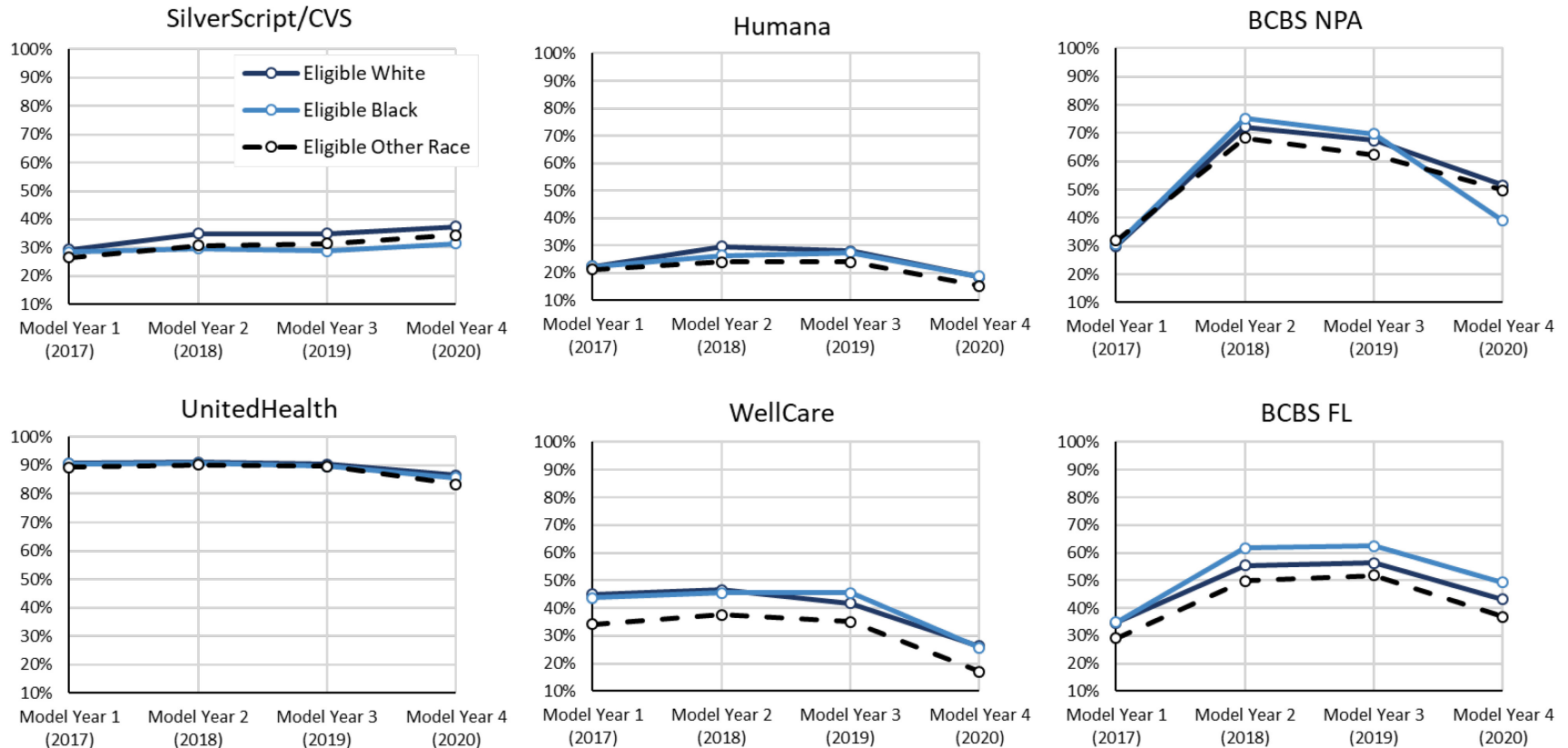
Figure B.10.5: Significant Service Receipt Rates Were Similar between Eligible LIS Beneficiaries and All Eligible Beneficiaries across Sponsors, Except for SilverScript/CVS and BCBS FL in Most Model Years
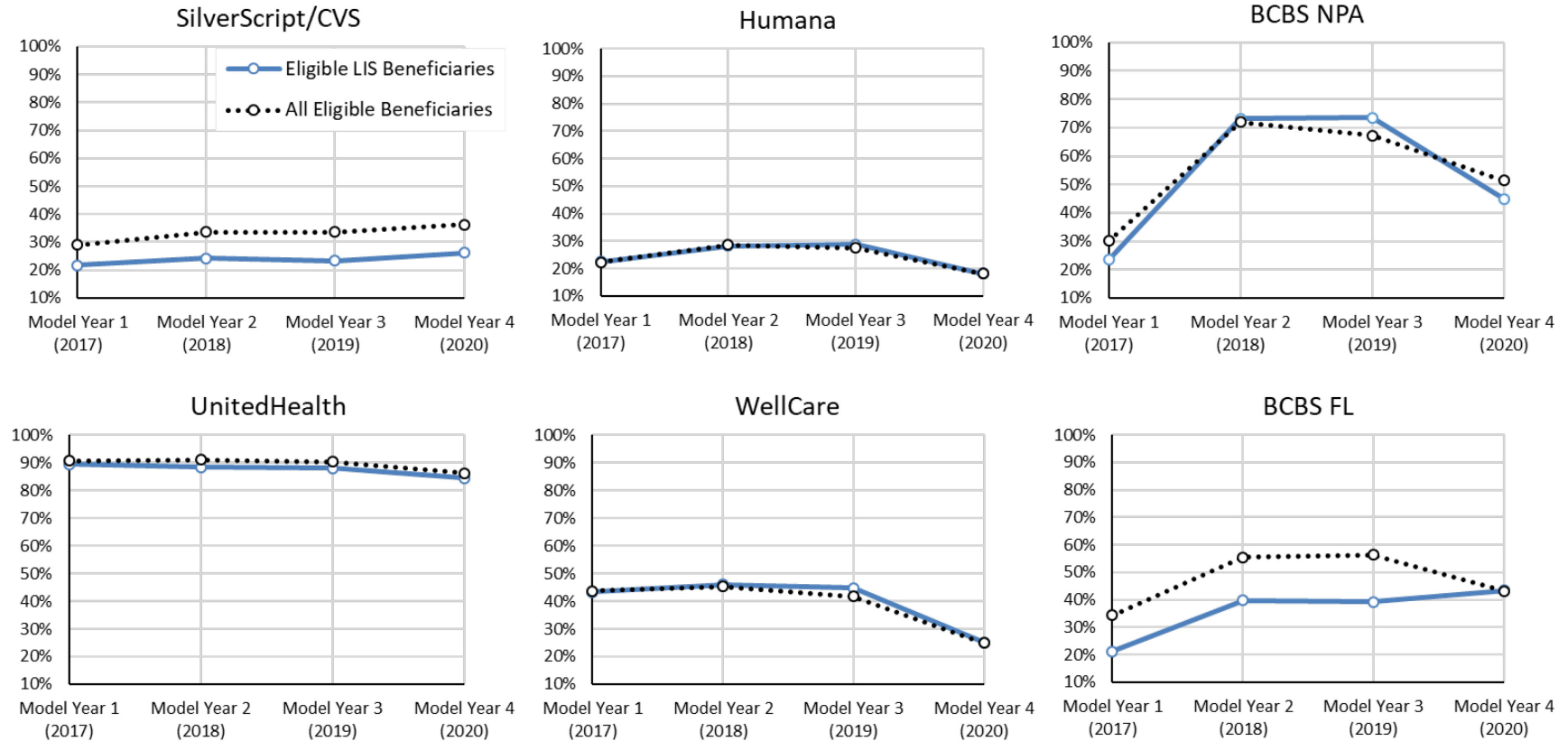
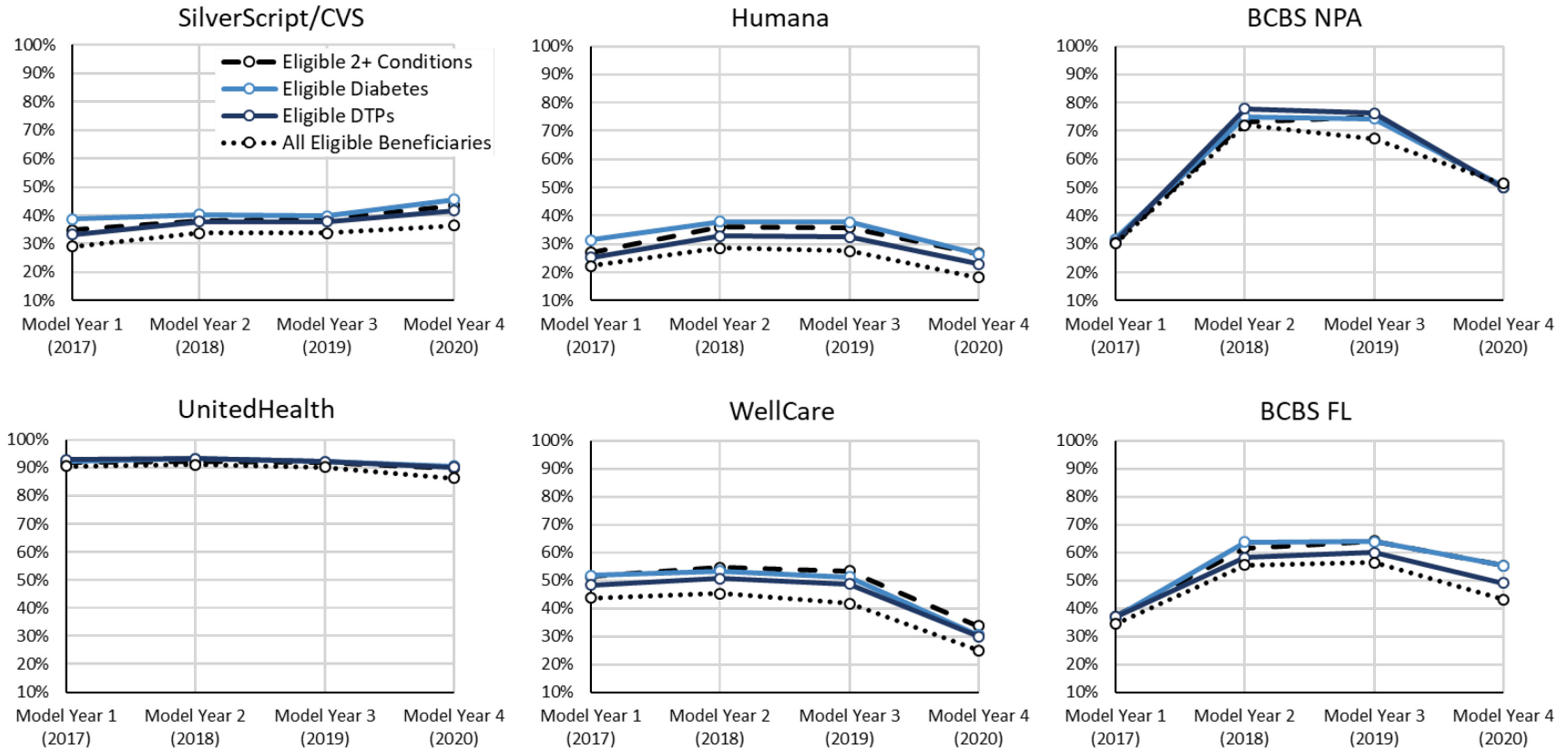Sources: CME; MARx; Enhanced MTM Encounter Data.

Notes: The term "eligible LIS beneficiaries" refers to beneficiaries who receive the low-income subsidy (LIS) and are eligible for Enhanced MTM, and the term "all eligible beneficiaries" refers to all beneficiaries in Model-participating plans who are eligible for Enhanced MTM.

Figure B.10.6: Significant Service Receipt Rates Were Similar among Eligible Beneficiaries across Race Categories for Most Sponsors, with Modelwide Results Driven by Lower Receipt Rates among Black and Other Race for SilverScript/CVS

Sources: CME; MARx; Enhanced MTM Encounter Data.

Figure B.10.7: Significant Service Receipt Rates Were Slightly Lower for All Eligible Beneficiaries Compared to Eligible Beneficiaries with Two or More Chronic Conditions, Diabetes, or DTPs for Most Sponsors

Sources: CME; MARx; Enhanced MTM Encounter Data; CCW; PDE data.

Notes: The term "eligible 2+ conditions" refers to eligible beneficiaries with two or more chronic conditions, "eligible diabetes" refers to eligible beneficiaries with diabetes, "eligible DTP" refers to eligible beneficiaries with DTPs, and "all eligible beneficiaries" refers to all beneficiaries in Model-participating plans who are eligible for Enhanced MTM.

Traditional MTM CMR Receipt Rates by LIS Status, Race, Chronic Conditions, or Drug Therapy Problems

There were a few differences in traditional MTM CMR receipt rates across subgroups of the comparison group beneficiaries eligible for traditional MTM (Table B.10.18). Traditional MTM CMR receipt rates were slightly lower among eligible comparison group beneficiaries of Other race when compared with all comparison group beneficiaries eligible for traditional MTM. Those with LIS status also had slightly lower CMR receipt rates in Model Years 1 through 3. In Model Year 4, traditional MTM CMRs were most numerous among White traditional MTM-eligible beneficiaries and those with two or more chronic conditions.

There were also some differences in traditional MTM CMR receipt rates across the subgroups of all comparison group beneficiaries (not just those eligible for traditional MTM), as shown in Table B.10.19. Among all LIS beneficiaries in participating plans, CMR receipt rates were higher than receipt rates among all participating plan enrollees in all Model Years. Among the three race categories, CMR receipt rates among all White beneficiaries were similar to rates among all participating plan enrollees in all Model Years; rates were higher for all Black beneficiaries, and lower for Other race beneficiaries. For all three medically complex beneficiary subgroups (beneficiaries with two or more chronic conditions, diabetes, or DTPs), CMR receipt rates were higher than receipt rates among all participating plan enrollees in all Model Years.

There were differences in CMR receipt rates across the subgroups of all plan beneficiaries in the Model and all plan beneficiaries in the comparison group. With the exception of the LIS beneficiary subgroup, CMR receipt rates among all Enhanced MTM beneficiaries belonging to each subgroup (Table B.10.17) were higher than receipt rates among all comparison group beneficiaries belonging to each subgroup in all Model Years (Table B.10.19).

Table B.10.18: Traditional MTM CMR Completion Rates among Eligible Beneficiaries in the Comparison Group Were Generally Similar across LIS Status, Race, and Chronic Conditions/DTPs, and Rates Increased Over Time for All Subgroups

Eligible Beneficiary Subgroup	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Traditional MTM Comparison Beneficiaries Who Received a CMR	Proportion of Traditional MTM Comparison Beneficiaries Who Received a CMR	Traditional MTM Comparison Beneficiaries Who Received a CMR	Proportion of Traditional MTM Comparison Beneficiaries Who Received a CMR	Traditional MTM Comparison Beneficiaries Who Received a CMR	Proportion of Traditional MTM Comparison Beneficiaries Who Received a CMR	Traditional MTM Comparison Beneficiaries Who Received a CMR	Proportion of Traditional MTM Comparison Beneficiaries Who Received a CMR
All Eligible Comparison Beneficiaries	*66,892*	*25.5%*	*63,844*	*32.3%*	*76,297*	*37.9%*	*66,625*	*40.9%*
LIS beneficiaries	50,314	24.2%	46,898	31.3%	53,452	36.7%	45,781	41.0%
White beneficiaries	52,796	26.4%	50,536	32.9%	60,985	38.8%	53,134	41.3%
Black beneficiaries	9,667	24.4%	8,840	31.6%	10,094	37.0%	8,746	41.9%
Other race beneficiaries	4,429	19.6%	4,468	27.7%	5,218	31.1%	4,745	35.1%
Beneficiaries with 2+ chronic conditions	55,890	25.8%	52,718	32.6%	61,473	38.4%	52,761	41.4%
Beneficiaries with diabetes	51,937	25.4%	49,639	32.5%	57,797	37.8%	50,119	40.8%
Beneficiaries with DTPs	53,401	25.5%	50,078	32.4%	58,263	38.1%	50,375	41.3%

Sources: CME; Part D Reporting Requirements Data.

Notes: Beneficiaries may fall into multiple subgroups. Comparison beneficiaries were selected for each sponsor's comparison group from multiple non-participating plans offering traditional MTM, and are not restricted to beneficiaries enrolled in the sponsor's plans.

Table B.10.19: Traditional MTM CMR Completion Rates among All Beneficiaries in the Comparison Group Were Generally Similar across LIS Status, Race, and Chronic Conditions/DTPs, and Rates Increased Over Time for All Subgroups

Beneficiary Subgroup	Model Year 1 (2017)		Model Year 2 (2018)		Model Year 3 (2019)		Model Year 4 (2020)	
	Comparison Beneficiaries in Subgroup Enrolled in Traditional MTM	Proportion of Comparison Beneficiaries in Subgroup Enrolled in Traditional MTM Who Received a CMR	Comparison Beneficiaries in Subgroup Enrolled in Traditional MTM	Proportion of Comparison Beneficiaries in Subgroup Enrolled in Traditional MTM Who Received a CMR	Comparison Beneficiaries in Subgroup Enrolled in Traditional MTM	Proportion of Comparison Beneficiaries in Subgroup Enrolled in Traditional MTM Who Received a CMR	Comparison Beneficiaries in Subgroup Enrolled in Traditional MTM	Proportion of Comparison Beneficiaries in Subgroup Enrolled in Traditional MTM Who Received a CMR
All Comparison Beneficiaries	*2,692,493*	*2.5%*	*2,427,975*	*2.6%*	*2,340,911*	*3.3%*	*2,134,959*	*3.1%*
LIS beneficiaries	1,508,857	3.3%	1,265,701	3.7%	1,163,300	4.6%	984,496	4.7%
White beneficiaries	2,110,865	2.5%	1,944,623	2.6%	1,894,000	3.2%	1,751,371	3.0%
Black beneficiaries	359,543	2.7%	292,512	3.0%	263,490	3.8%	220,925	3.4%
Other race beneficiaries	222,085	2.0%	190,840	2.3%	183,421	2.8%	162,663	2.9%
Beneficiaries with 2+ chronic conditions	1,081,922	5.2%	943,733	5.6%	881,024	7.0%	781,060	6.8%
Beneficiaries with diabetes	855,643	6.1%	748,110	6.6%	699,290	8.3%	616,552	8.1%
Beneficiaries with DTPs	1,332,795	4.0%	1,182,853	4.2%	1,119,430	5.2%	1,000,885	5.0%

Sources: CME; Part D Reporting Requirements Data.

Notes: Beneficiaries may fall into multiple subgroups. Comparison beneficiaries were selected for each sponsor's comparison group from multiple non-participating plans offering traditional MTM, and are not restricted to beneficiaries enrolled in the sponsor's plans.

B.11 Qualitative Methods

This section provides an overview of the qualitative data collection methods used to gather information for this Fourth Evaluation Report from the six participating Part D sponsors and their vendors. The qualitative information included in this report is based on analysis conducted between November 2016 and December 2020. Section B.11.1 describes the approach used for qualitative data collection through sponsor and vendor interviews and document review. Section B.11.2 summarizes the methods used to analyze the qualitative data.

B.11.1 Sponsor and Vendor Interviews and Review of Secondary Information

Qualitative researchers on the evaluation team conducted in-depth telephone or in-person interviews with leadership and key representatives from both participating sponsors and their respective vendors on a quarterly basis beginning in November 2016. In addition, researchers reviewed a number of secondary materials, including the sponsors' Model Years 1-4 applications (including any mid-year application changes), supplemental application materials, and materials from CMS presentations and Internal Learning Systems records submitted by sponsors to CMS. They also reviewed additional information provided by sponsors or sponsors' vendors (e.g., PowerPoint presentations describing Enhanced MTM interventions, beneficiary recruitment and educational material examples, Enhanced MTM intervention policy documents, and targeting specifications). All interviews were conducted using sponsor-tailored interview protocols that were designed to capture information consistently across sponsors. In-person interviews with staff responsible for overseeing or implementing Enhanced MTM were also conducted during site visits to sponsor and/or vendor headquarters between October 2017 and April 2018. One "virtual" site visit was conducted with a sponsor during March and April 2018 via Webex. At least one phone call with each sponsor was conducted every quarter.[17] In several cases, multiple phone calls were conducted each quarter.

Interview topics varied across Model Years. Initial calls during the first year focused on sponsors' overall Enhanced MTM interventions and structure. Subsequent calls in Model Year 1 focused primarily on obtaining in-depth information about and documentation of the targeting specifications that sponsors or sponsors' vendors used to determine which beneficiaries would receive Enhanced MTM-related outreach. In some cases, interviews occurred later in the year due to the time required to execute non-disclosure agreements (NDAs) with the sponsor/vendor prior to detailed conversations about targeting approaches. Subsequent Model Year 1 calls also

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[17] In lieu of a phone call with UnitedHealth in a few quarters, UnitedHealth provided an update by email.

covered high-level differences between the sponsors' traditional Part D and Model Year 1 Enhanced MTM interventions; key implementation milestones and processes; Enhanced MTM intervention modifications; implementation lessons learned, challenges, and/or successes; and workforce structure and training. Calls conducted during 2018 and 2019 focused on Model Year 2 and 3 implementation, respectively, covering topics related to intervention updates; changes to the sponsors' approaches for using SNOMED CT codes to document Enhanced MTM services and constructing their Medicare Advantage Prescription Drug (MARx) Transaction Code (TC) 91 data sets; processes related to prescriber outreach and documentation of prescriber-related interactions; and ongoing implementation lessons learned, challenges, and/or successes. Calls conducted during 2020 focused on Model Year 4 implementation and covered topics similar to those addressed during 2018 and 2019, with a particular focus on the effect of the evolving COVID-19 PHE on Model implementation.

For each interview and site visit, qualitative researchers collaborated with their point of contact for each sponsor to determine which internal or vendor staff representatives should participate in the interview. Respondents included Enhanced MTM intervention leads/managers, overall Part D MTM directors, account managers or directors, pharmacists, clinical systems and reporting representatives, analytics representatives, legal and regulatory affairs representatives, and consultants.

B.11.2   Qualitative Data Analysis

Analysis of all participating and non-participating sponsor-related qualitative data followed a similar process. All interviews were audio-recorded and detailed notes were generated for analysis purposes. The qualitative lead, along with other researchers who participated in the interviews, reviewed the interviews and supporting materials for common themes and key points of interest. This group met regularly to discuss key outputs from interviews across all participating sponsors/vendors, reached consensus on the interpretation of the data, and identified themes/patterns, which are summarized and presented in this Fourth Evaluation Report.