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Senior-Focused Primary Care Organizations Increase Access For Medicare Advantage Members, Especially Underserved Groups

ABSTRACT **Population-based payment in Medicare Advantage (MA) can foster innovation in care delivery by giving risk-bearing providers flexibility and strong incentives to enhance care and engage patients. This may particularly benefit historically underserved groups for whom payments often exceed costs. In this study, using data from Humana MA plans, we examined "senior-focused" primary care organizations that are supported predominantly by population-based payments in contracts with MA plans. We explored whether such organizations supported by such payment are associated with better care and improved equity compared with other primary care organizations receiving other forms of payment in MA. Analyses of data from 462,872 MA beneficiaries in 2021 showed that senior-focused primary care organizations served more Black and dually eligible beneficiaries than other primary care organizations serving MA beneficiaries, and regression-adjusted analysis showed that senior-focused primary care patients received 17 percent more primary care visits. Differences were largest among Black and dual-eligible beneficiaries. These findings suggest that risk-bearing organizations in MA are responding to current payment dynamics and providing enhanced care and access to patients, particularly historically underserved populations.**

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The US health care system often fails to meet the needs of older adults, many of whom have co-occurring chronic conditions and complex care needs.[1,2] Over the course of the past decade, reform efforts in Medicare have experimented with value-based payment models to improve care quality and reduce unnecessary spending for older adults. Population-based (that is, accountable care organization [ACO]) payment models and selected episodic models in the traditional Medicare program have achieved modest success, but design challenges have limited providers' incentives to participate and to reduce costs.[3] In particular, these models have generally set benchmarks based on providers' historical spending. Historical benchmarks penalize providers for generating savings when benchmarks are periodically rebased, and they entrench levels of spending for underserved populations that may be too low, thereby working against efforts to promote health equity.

In contrast, risk contracts in Medicare Advantage (MA) may be designed more effectively. Unlike ACOs to date, MA plans are not penalized with lower subsequent benchmarks if they reduce unnecessary spending because the basis for benchmarks (traditional Medicare spending) is largely external to plan behavior. In addition, MA plan payments are set at a common rate for

all plans in a county, not at a plan's historical spending. This redistributes payment toward underserved populations whose spending is low for their health risk, as is the case for historically disadvantaged racial and ethnic groups,[4] resulting in payment that is above their historical spending and more commensurate with meeting their health care needs.

If these features of population-based payment are transmitted from MA plans to providers via risk contracts, providers would have stronger incentives than in traditional Medicare ACO contracts to limit unnecessary care, enter underserved communities, and engage underserved patients by offering enhanced care. Recent changes to traditional Medicare ACO contracts, including in the ACO Realizing Equity, Access, and Community Health (ACO REACH) model and Medicare Shared Savings Program, have increasingly incorporated features with similar implications, including blending historical with regional benchmarks and explicitly adjusting benchmarks to support health equity. Thus, understanding the impact of population-based payment in MA could shed light on the potential impact of well-designed payment reforms more broadly, but there has been little study of risk contracts between plans and providers in MA.

In this study, we examined senior-focused primary care organizations, such as Oak Street Health or Iora Health,[5] whose growth has been supported predominantly by population-based payment arrangements in MA. These new entrants initially focused on beneficiaries in MA but are now increasingly participating in evolving traditional Medicare models such as ACO REACH. Despite considerable growth, investment, and public and policy maker attention, little is known about the impact of these organizations on care for older adults.

Senior-focused primary care organizations are distinguished from the typical provider organization in an ACO contract with traditional Medicare or an MA insurer by three key traits: They are reimbursed predominantly through population-based payment arrangements in the form of full-risk capitation, they almost exclusively care for older adults in Medicare (particularly MA), and they tend to enter and serve historically more disadvantaged communities. Together, these traits facilitate the delivery of enhanced and more efficient care by ensuring that the incentives to do so are aligned across the organization's full patient population. These incentives follow from capitation payments that exceed medical costs, especially for underserved beneficiaries.[4] These reliable margins should give senior-focused primary care organizations the flexibility and motivation to use the additional resources for enhanced care, as enhanced care in turn attracts more patients in the populations they aim to serve. Such care enhancements might include more comprehensive primary care, data and analytics, expanded access and outreach, and supportive services to enable better disease management.

In comparison, provider organizations serving a broader patient population and operating under different payment models (for example, with no population-based payment or a mix of population-based and other payment models) might have fewer resources per patient and weaker incentives to provide, for example, after-hours access and transportation services that appeal to underserved patients facing access barriers. In theory, assuming that providers compete for patients, population-based payments that are more commensurate with meeting unmet needs should motivate providers to enter undeserved communities and make efforts to engage, retain, and provide better care to enrollees in those communities. The extent to which this occurs, however, has not been well described.

For this study, we took advantage of a unique data set from a large MA insurer (Humana) that contracts with senior-focused primary care organizations, to compare utilization and aspects of quality between beneficiaries attributed to senior-focused primary care organizations and those attributed to other primary care providers. This overall comparison elucidated care differences that might result from population-based payment in general, and not necessarily from a senior focus. We then conducted two types of subgroup comparisons. First, we compared senior-focused primary care organizations to other non-hospital-based primary care providers that had a two-sided, population-based risk arrangement with the insurer. These organizations were commonly large, multisite provider groups. This comparison assessed whether senior-focused primary care organizations' focus on seniors in MA, and the resulting resources and incentives to improve care delivery for all patients served, were associated with greater improvements than observed for other providers in similar, two-sided, population-based risk arrangements. Second, we compared senior-focused primary care organizations to all other primary care providers, regardless of risk arrangement within subgroups of patients based on race and socioeconomic status, to understand the extent to which senior-focused primary care organizations' incentives to alter care delivery in ways that better serve historically underserved groups were associated with greater differences in care use and quality for those groups.

Senior-focused primary care organizations served more Black and dual-eligible beneficiaries than other organizations.

Study Data And Methods

PRIMARY CARE ORGANIZATIONS In this study, we used senior-focused primary care organizations to understand the impact of population-based payment arrangements in MA on utilization and quality outcomes. We defined senior-focused primary care organizations as those that almost exclusively serve Medicare beneficiaries, are predominantly reimbursed through full-risk payment arrangements whereby they bear nearly all of their patients' Part A and Part B risk, operate multiple sites with standardized care practices, and directly provide patient care (and therefore are not independent physician associations or management services organizations).

Through market research and expert interviews, we were able to identify six senior-focused primary care organizations in the 2021 Humana claims data. Additional information on the selection process and the organizations is in online appendix exhibit A1.[6] Practices in senior-focused primary care organizations were identified at the Taxpayer Identification Number level, and all other primary care organizations were classified as non-senior-focused primary care organizations. For each organization, we calculated practice size as the average number of National Provider Identifiers that billed to each Taxpayer Identification Number monthly during 2021. We also classified organizations as being hospital system associated if the proportion of office visits billed to hospital outpatient departments exceeded 10 percent in 2021.

STUDY POPULATION We identified beneficiaries enrolled in MA prescription drug health maintenance organization (HMO) plans offered by Humana. Eligible beneficiaries were age sixty-five or older as of January 1, 2021, and had continuous enrollment during the study period of January 1, 2020, through December 31, 2021 (or until death in 2021). HMO beneficiaries are required to self-select a primary care provider on enrollment, which we used to attribute beneficiaries to primary care organizations at the Taxpayer Identification Number level.

We excluded beneficiaries who changed primary care providers throughout 2021, were attributed to primary care providers that delegated claims processing to a third party, or had evidence of hospice use or long-term institutionalization during the study period. Because our analytic approach involved within–ZIP code comparisons, we excluded beneficiaries residing in ZIP codes without both senior-focused primary care–attributed and other primary care–attributed beneficiaries. Finally, as none of the senior-focused primary care organizations in our sample were hospital system associated, and there are known differences in utilization patterns between hospital system–associated and independent primary care organizations,[7,8] we excluded beneficiaries attributed to hospital system–associated primary care organizations. The full attrition diagram is in appendix exhibit A2.[6]

BENEFICIARY CHARACTERISTICS We extracted the following demographic characteristics as of January 1, 2021, from the Medicare Enrollment Database: age, sex (binary), race (Black, White, other, or unknown), beneficiary residence ZIP code, dual eligibility for Medicare and Medicaid, eligibility for the Medicare Part D low-income subsidy, and disability as the original reason for Medicare entitlement.

For each beneficiary, we obtained the 2019 Area Deprivation Index (ADI) associated with their census block from the University of Wisconsin Neighborhood Atlas website.[9] The ADI is a census block group measure of socioeconomic disadvantage.

Beneficiaries' clinical characteristics were derived from medical and pharmacy claims in the year preceding the study year and included an indicator for whether the beneficiary had a diagnosis of end-stage renal disease (ESRD) during the study period, as well as three claims-based comorbidity indices: RxRisk-V,[10] Deyo-Charlson,[11] and Elixhauser.[12]

PLAN CHARACTERISTICS For each MA prescription drug HMO plan covering beneficiaries who were included in the study population, we characterized the actuarial value of the plan's benefit offerings in 2021, using Milliman's Medicare Advantage Competitive Value Added Tool (MACVAT).[13]

OUTCOME MEASURES All outcomes were constructed using medical and pharmacy claims for the period January 1, 2021, through December 31, 2021. Utilization outcomes included the proportion of beneficiaries with a primary care visit

during the year, the number of primary care visits, the number of hospitalizations (including observation stays), the number of emergency department (ED) visits resulting in discharge, and the proportion of beneficiaries with a thirty-day inpatient readmission (see appendix exhibit A3 for more details).[6]

Quality outcomes included appropriate breast cancer screening; appropriate colorectal cancer screening; one measure of comprehensive diabetes care (HbA1c poor control [HbA1c level >9.0 percent]); control of blood pressure in beneficiaries with hypertension; and one composite measure of medication adherence for angiotensin-converting enzyme inhibitors, statins, and diabetes medication. All quality outcomes were defined using the 2021 Healthcare Effectiveness Data and Information Set specifications and were selected because of their inclusion in quality measurement activities across Medicare programs (appendix exhibit A4).[6]

ANALYTIC APPROACH We computed differences in demographic and clinical characteristics between beneficiaries attributed to senior-focused primary care organizations and beneficiaries attributed to other primary care organizations overall and within the ZIP code, to check balance and potential confounding. To estimate the associations between senior-focused primary care attribution and utilization and quality, we constructed a series of regression models. We used linear regression for count outcomes and logistic regression for binary outcomes. The main independent variable was a binary indicator of attribution to a senior-focused primary care organization. All models controlled for the following beneficiary-level characteristics: age, sex, race, dual eligibility, low-income subsidy eligibility, disability as the original reason for Medicare entitlement, ADI, ESRD diagnosis, RxRisk-V score, the practice size of their attributed primary care organization, and the MACVAT value of their MA prescription drug HMO plan. The RxRisk-V score, a pharmacy claims–based comorbidity index, was chosen over medical claims–based comorbidity indices to reduce potential bias from differences in coding practices between senior-focused primary care and other primary care organizations. In addition, all models included beneficiary ZIP code fixed effects to control for small-area variation in demographics, socioeconomic status, and delivery system attributes. To account for within-organization correlation, we reported cluster-robust standard errors at the Taxpayer Identification Number level.

To mitigate the potential influence of a small number of beneficiaries with extremely high utilization, we Winsorized the three count-based utilization outcomes at the ninety-ninth percentile. For analyses of quality outcomes, we restricted the models to beneficiaries who met the measure-specific Healthcare Effectiveness Data and Information Set eligibility criteria (for example, the diabetes measure was assessed only among beneficiaries up to age seventy-five who had a diabetes diagnosis).

Our findings provide additional evidence on the scope and impact of payment reform in the Medicare program.

Our primary analysis compared outcomes between MA beneficiaries who were attributed to senior-focused primary care organizations and those who were attributed to other, non-senior-focused primary care organizations overall. We then conducted additional comparisons to understand the extent to which resources and incentives improve care delivery for patients: We compared MA beneficiaries attributed to senior-focused primary care organizations to those attributed to other primary care organizations that had similar two-sided, population-based risk arrangements with the insurer, as senior-focused primary care organizations overwhelmingly operate under these arrangements with MA; we estimated differences between senior-focused primary care organizations and other primary care organizations, regardless of risk arrangement, separately for Black and White MA beneficiaries; and we estimated outcomes among the subset of MA beneficiaries who either were dually eligible or were eligible for the low-income subsidy.

SENSITIVITY ANALYSES We conducted several sensitivity analyses. First, to test the robustness of our findings to alternative specifications of beneficiaries' clinical risk, we replaced the RxRisk-V score with the Deyo-Charlson and Elixhauser comorbidity indices. Second, we repeated the analyses but included beneficiaries attributed to hospital system–associated non–senior-focused primary care organizations.

Statistical analyses were performed using SAS Enterprise Guide, version 8.3. This study was granted exemption from an Institutional Review Board review by the Humana Healthcare Research Human Subject Protection Office.

LIMITATIONS Our study was subject to several limitations. First, although we excluded organizations with a high percentage of hospital-based outpatient department billing, we were unable to completely identify health system–owned physician practices in the non–senior-focused primary care group. Health system affiliation leads to weaker incentives to augment primary care and reduce hospital use.[14] Therefore, differential utilization may reflect underlying differences that are not a response to population-based payment in MA. Second, we could not assess total spending or provider costs. Provider savings from reducing acute care use may have been more than offset by increases in outpatient care use and other costs of care management and supportive services.

Third, our findings may have been sensitive to our characterization of senior-focused primary care organizations. As a result of inherent imprecision in identifying these organizations, we may have classified organizations with delivery models similar to theirs as non–senior-focused primary care, which would have biased our findings toward the null. Fourth, the data on race and ethnicity that we used are known to misclassify Hispanic and other non-White beneficiaries as White.[15] Thus, the proportion White may have differed substantially more between senior-focused primary care organizations and other organizations than our results suggested.

Fifth, our findings may have been affected by beneficiary selection into senior-focused primary care organizations on unobserved variables. We were limited in our ability to assess the clinical characteristics of beneficiaries without bias from differences in coding practices and care delivery patterns. We assessed differences in RxRisk-V scores, which should be less subject to coding practices, and mortality rates conditional on adjustment for other covariates as tests of residual confounding. These tests showed that there was no difference in RxRisk-V scores after we adjusted for demographic characteristics (4.8 for both groups; $p = 0.309$). Although unadjusted mortality was higher among senior-focused primary care organizations, when we adjusted for other demographic characteristics (that is, race, dual eligibility, disability, ADI, ESRD, practice size, and MACVAT), observed mortality was 0.2 percentage points lower among senior-focused primary care organizations (data not shown). We were not able to determine the cause of this difference, which could suggest either that senior-focused primary care patients were healthier than patients in other organizations or that care improvements by senior-focused primary care organizations reduced mortality. If senior-focused primary care patients were healthier, our inability to control for this difference might have biased results for acute care and disease control in favor of senior-focused primary care. Finally, the study's overlap with peak COVID-19 years (2020–21) may limit its generalizability to other years.

Study Results

STUDY POPULATION The study population included 462,872 MA beneficiaries, 88,602 of whom were attributed to senior-focused primary care organizations (exhibit 1). The beneficiaries in this study largely resided in the South (70 percent) and Midwest (18 percent) and in urban areas (84 percent) (data not shown). Senior-focused primary care organizations served more Black beneficiaries (30 percent versus 19 percent) than did other primary care organizations, as well as more beneficiaries dually eligible for Medicare and Medicaid or the Medicare Part D low-income subsidy (22 percent versus 14 percent) (exhibit 1). Senior-focused primary care beneficiaries had slightly greater clinical risk, as measured by the RxRisk-V score (5.0 versus 4.8). However, there were larger differences between beneficiaries in senior-focused primary care and in other primary care in the Elixhauser and Deyo-Charlson comorbidity indices, substantiating our use of RxRisk-V over the other measures of clinical risk (appendix exhibit A5).[6]

UTILIZATION OUTCOMES In adjusted analyses, attribution to a senior-focused primary care organization was associated with a higher intensity of primary care use compared with attribution to other primary care organizations. Regression-adjusted relative differences are presented in exhibit 2. Although the proportion of beneficiaries with a primary care visit was comparable between groups (0.95 for each group), beneficiaries attributed to senior-focused primary care organizations had 17 percent more primary care visits (4,704 versus 4,026 per 1,000 beneficiaries) than those attributed to other primary care organizations. Unadjusted differences in number of primary care visits were larger and are presented in appendix exhibit A6.[6]

In adjusted analyses, senior-focused primary care–attributed beneficiaries had 6 percent fewer hospitalizations (252 versus 270 per 1,000 beneficiaries) and 11 percent fewer ED visits (406 versus 457 per 1,000 beneficiaries) and were 10 percent less likely to experience a thirty-day inpatient readmission (7 percent versus 8 percent) compared with beneficiaries attributed to other primary care organizations (exhibit 2). These results should be interpreted with some caution because of patient selection concerns and because lower acute care use for se-

EXHIBIT 1

Characteristics of Medicare Advantage (MA) beneficiaries attributed to senior-focused primary care providers versus other primary care providers, Humana MA plans, 2020 and 2021

Characteristics	Senior focused (n = 88,602)	Other (n = 374,270)	Difference[a] Unadjusted	Difference[a] Adjusted for patient ZIP code
Age, mean years	75.6	74.7	0.8****	0.8****
Female, %	58.7	55.8	2.9****	3.3****
Race, %				
White	59.6	71.6	−12.0****	−4.1****
Black	29.7	18.5	11.3****	3.1****
Other	8.4	7.3	1.1****	−0.3****
Unknown	2.3	2.7	−0.4****	−0.4****
Dual or LIS eligibility, %	22.4	13.9	8.6****	5.2****
Disability as original reason for Medicare entitlement, %	15.5	13.5	2.0****	1.9****
Area Deprivation Index, mean	58.6	54.7	3.9****	1.8****
ESRD at any point in 2020–21, %	0.9	0.6	0.3****	0.1**
Clinical risk (RxRisk-V score), mean	5.0	4.8	0.2****	0.2****
Mortality, %	3.6	3.3	0.3****	0.0
Practice size (no. of NPIs per TIN), mean	251.9	493.7	−241.8****	−96.6****

SOURCES Authors' analysis of claims and Medicare Enrollment Database data for participants in MA prescription drug health maintenance organization plans offered by Humana in 2021. Area Deprivation Index data for 2019 were obtained from the University of Wisconsin Neighborhood Atlas website. **NOTES** Because of data quality issues with the Centers for Medicare and Medicaid Services (see note 15 in text), although we report only race, we combined race and ethnicity data, particularly for beneficiaries who self-reported in other data sources as being American Indian/Alaska Native, Asian/Pacific Islander, or Hispanic, into an "other" category. LIS is Medicare Part D low-income subsidy (for prescription drugs). ESRD is end-stage renal disease. NPI is National Provider Identifier. TIN is Taxpayer Identification Number. [a]When data are percentages, difference is percentage points. $^{**}p < 0.05$ $^{****}p < 0.001$

nior-focused primary care patients emerged only with covariate adjustment (see appendix exhibit A6 for unadjusted results).[6] For example, compared with other primary care organizations, senior-focused primary care organizations serve more dual-eligible patients, but they may serve healthier patients among dual eligibles.

QUALITY OUTCOMES In adjusted analyses, attribution to a senior-focused primary care organization was associated with statistically significantly higher performance on all five quality measures compared with attribution to other primary care organizations (exhibit 3). The largest differences were observed in HbA1c poor control (10 percent of beneficiaries attributed to senior-focused primary care organizations versus 14 percent of those attributed to other organizations had HbA1c levels indicating poor con-

EXHIBIT 2

Utilization outcomes for Medicare Advantage (MA) beneficiaries attributed to senior-focused primary care providers versus other primary care providers, Humana MA plans, 2021

Utilization measures	Senior focused	Other	Difference (%)	p value
Proportion of beneficiaries with a primary care visit	0.95	0.95	−0	0.746
No. of primary care visits per 1,000	4,704	4,026	17	0.044
No. of hospitalizations per 1,000	252	270	−6	0.001
No. of ED visits per 1,000	406	457	−11	<0.001
Proportion of beneficiaries with a 30-day inpatient readmission	0.07	0.08	−10	0.011

SOURCE Authors' analysis of claims and Medicare Enrollment Database data for participants in MA prescription drug health maintenance organization plans offered by Humana in 2021. **NOTES** Estimates were regression adjusted for beneficiaries' demographic and clinical characteristics, characteristics of the beneficiary's residence area, and ZIP code fixed effects. Statistical testing was based on cluster-robust standard errors. Sample sizes are in exhibit 1. ED is emergency department.

EXHIBIT 3

Quality outcomes for Medicare Advantage (MA) beneficiaries attributed to senior-focused primary care providers versus other primary care providers, Humana MA plans, 2021

Quality measures	Senior focused (%)	Other (%)	Difference (%)	*p* value
Breast cancer screening	83	80	3	0.082
Colorectal cancer screening	83	80	4	0.041
Diabetes care: HbA1c poor control (>9%)	10	14	−29	<0.001
Controlling high blood pressure	80	73	9	0.012
Medication adherence (ACE inhibitors, statins, diabetes)	90	88	1	<0.001

SOURCE Authors' analysis of claims and Medicare Enrollment Database data for participants in MA prescription drug health maintenance organization plans offered by Humana in 2021. **NOTES** Estimates were regression adjusted for beneficiaries' demographic and clinical characteristics, characteristics of the beneficiary's residence area, and ZIP code fixed effects. Statistical testing was based on cluster-robust standard errors. Models that estimated controlling high blood pressure excluded the control variable for end-stage renal disease because there were few beneficiaries with end-stage renal disease included in these measures. Cancer screening was defined as "appropriate," as described in the text. Controlling high blood pressure was measured among beneficiaries with hypertension. ACE is angiotensin-converting enzyme.

trol [>9 percent]) and controlling high blood pressure (80 percent versus 73 percent). Statistically significant differences were also observed for appropriate breast cancer screening, appropriate colon cancer screening, and medication adherence, although relative differences were small (all between 1 percent and 4 percent). Unadjusted differences were somewhat smaller (appendix exhibit A7).[6]

SUBGROUP ANALYSES BY PAYMENT ARRANGEMENT When we restricted the study population to beneficiaries attributed to primary care organizations reimbursed under advanced value-based payment arrangements (senior-focused primary care and other organizations engaged in two-sided risk arrangements with the insurer), senior-focused primary care attribution was associated with statistically significantly lower rates of hospitalizations, ED visits, and thirty-day readmissions, although the magnitudes of the differences for hospitalizations and ED visits were lower than those seen in the overall population (see the "two-way risk" panel of exhibit 4). The difference in primary care visits was also attenuated and no longer statistically significant, but it remained sizable (10 percent). Statistically significant differences in performance on quality measures remained for only the medication adherence measure.

SUBGROUP ANALYSES BY RACE AND SOCIOECONOMIC STATUS Black beneficiaries attributed to senior-focused primary care organizations experienced 39 percent more primary care visits compared with Black beneficiaries attributed to other organizations (versus 7 percent difference for White beneficiaries) and had 12 percent fewer hospitalizations (versus 4 percent for White beneficiaries), 17 percent fewer ED visits (versus 9 percent for White beneficiaries), and a 20 percent lower likelihood of thirty-day inpatient readmission (versus 10 percent for White beneficiaries) (exhibit 4 and appendix exhibit A8).[6] The association between senior-focused primary care attribution and quality measure performance was similar for Black beneficiaries (significant differences in all five quality measures compared with one [medication adherence] of five for White beneficiaries). Differences between senior-focused primary care–attributed and other primary care–attributed beneficiaries were particularly large for the percentage of Black beneficiaries with HbA1c poor control (10 percent of senior-focused primary care beneficiaries versus 16 percent of other beneficiaries) and with controlled high blood pressure (81 percent versus 70 percent) (appendix exhibit A9).[6]

Among beneficiaries who were dually eligible or eligible for a low-income subsidy, senior-focused primary care attribution was associated with more primary care visits (21 percent versus 17 percent overall), fewer hospitalizations (11 percent versus 6 percent overall), and lower likelihood of thirty-day readmission (30 percent versus 10 percent lower likelihood overall) compared with other primary care attribution (exhibits 2 and 4). Dual-eligible and low-income subsidy–eligible beneficiaries attributed to senior-focused primary care organizations experienced better performance on all five quality measures, with the largest differences in HbA1c poor control (11 percent of senior-focused primary care–attributed beneficiaries versus 18 percent of other primary care–attributed beneficiaries) and controlling high blood pressure (81 percent versus 71 percent) (appendix exhibit A9).[6]

SENSITIVITY ANALYSES Results from the primary analyses were generally robust to alterna-

EXHIBIT 4

Utilization and quality outcomes for Medicare Advantage (MA) beneficiaries attributed to senior-focused primary care providers versus other primary care providers, by subgroup, Humana MA plans, 2021

	Two-way risk (n = 290,813)			Black (n = 91,308)			Dual or LIS eligibility[a] (n = 65,950)		
	Senior focused	Other	Difference (%)	Senior focused	Other	Difference (%)	Senior focused	Other	Difference (%)
No. of beneficiaries	80,010	210,803	—[b]	26,144	65,164	—[b]	19,681	46,269	—[b]
Utilization outcomes									
Proportion of beneficiaries with a primary care visit	0.96	0.96	–0	0.95	0.95	–0	0.94	0.93	1
No. of primary care visits per 1,000	4,742	4,302	10	5,881	4,222	39****	5,206	4,314	21***
No. of hospitalizations per 1,000	267	276	–3*	247	280	–12***	335	376	–11****
No. of ED visits per 1,000	402	437	–8****	455	546	–17****	574	646	–11****
Proportion of beneficiaries with a 30-day inpatient readmission	0.07	0.08	–12**	0.06	0.07	–20****	0.06	0.09	–30****
Quality outcomes, %									
Breast cancer screening	83	83	1	89	86	4***	83	76	9***
Colorectal cancer screening	83	83	1	87	84	3**	83	76	8***
Diabetes care: HbA1c poor control (>9%)	9	10	–9	10	16	–36****	11	18	–37****
Controlling high blood pressure	81	79	2	81	70	16****	81	71	14****
Medication adherence (ACE inhibitors, statins, diabetes)	90	89	1****	88	86	3****	89	87	3****

SOURCE Authors' analysis of claims and Medicare Enrollment Database data for participants in MA prescription drug health maintenance organization plans offered by Humana in 2021. **NOTES** The number of beneficiaries included in these analyses is less than the numbers reported in exhibit 1 because we excluded beneficiaries if they resided in a ZIP code area where there was not at least one eligible senior-focused primary care–attributed beneficiary and at least one eligible other primary care–attributed beneficiary. Estimates were regression adjusted for beneficiaries' demographic and clinical characteristics, characteristics of the beneficiary's residence area, and ZIP code fixed effects. Models that estimated controlling high blood pressure excluded the control variable for end-stage renal disease because there were few beneficiaries with end-stage renal disease included in these measures. Statistical testing was based on cluster-robust standard errors. Cancer screening was defined as "appropriate," as described in the text. Controlling high blood pressure was measured among beneficiaries with hypertension. ED is emergency department. ACE is angiotensin-converting enzyme. [a]Beneficiaries dually eligible for Medicare and Medicaid, and those eligible for the Part D low-income subsidy. [b]Not applicable. *p < 0.10 **p < 0.05 ***p < 0.01 ****p < 0.001

tive approaches to clinical risk adjustment, with the magnitude of the observed differences in utilization between senior-focused primary care–attributed and other primary care–attributed beneficiaries generally lowest in our primary models using the RxRisk-V score (appendix exhibit A10).[6] Relaxing our exclusion of beneficiaries attributed to hospital system–associated primary care organizations led to somewhat larger differences in care use (appendix exhibits A11 and A12).[6]

Discussion

In this study of MA beneficiaries, those attributed to senior-focused primary care organizations paid under a population-based payment model received substantially more primary care than other beneficiaries in the same ZIP code served by other primary care providers. This difference was larger for Black and low-income beneficiaries, whom senior-focused primary care organizations disproportionately served.

Our findings are consistent with the notion that setting population-based payments above historical costs for underserved groups may advance health equity by encouraging plans and providers to enter underserved communities and the provision of enhanced care, including better access to primary care. Senior-focused primary care organizations operate almost exclusively in risk-based population-level payment arrangements with MA plans, thereby establishing strong incentives to attract underserved patients through populationwide changes in care delivery. The multipayer problem that can otherwise dilute incentives for systems change is minimized in this setting.

There are two mechanisms whereby Medicare's current risk-adjustment system may encourage differential enhancement of primary care for underserved groups through these risk-based contracts. First, intentionally excluding markers of social disadvantage from the risk-adjustment model sets payments above historical costs for some underserved groups, creating incentives to attract them with more accessible primary care (as described above).[4] The case of dual-eligible beneficiaries is different, but analogous. Medicaid provides fully financed supple-

Population-based payment reform might be an effective mechanism to catalyze the development and growth of new organizations and care models.

mental coverage for them, freeing up more surplus in MA payments to devote to supplemental benefits and enhanced care delivery. Thus, the incentive to attract beneficiaries specifically with better primary care (as opposed to lower premiums) is greater for dual eligibles. Second, increased use of primary care increases opportunities for more coding of diagnoses, which increases plan and provider payment. This may be particularly relevant to historically underserved patients, such as Black and low-income beneficiaries, whose conditions may be less completely coded relative to their health status.[4]

Our findings are consistent with both of these mechanisms: Senior-focused primary care organizations served more Black and dual-eligible beneficiaries than other primary care organizations, provided them with more primary care, and appeared to code at a higher intensity. We could not disentangle the contributions of these mechanisms to our results. A risk-adjustment system designed to encourage better care for underserved groups via the first mechanism only could achieve its objectives as long as patients responded to enhanced care in their choice of providers, and payments were commensurate with meeting their unmet needs.

We also found better performance on several quality measures and lower acute care use for beneficiaries served by senior-focused primary care organizations. However, these findings may have been at least partly explained by unmeasured confounding, as lower mortality rates among senior-focused primary care patient populations suggested that they may be healthier. We believe that the results for primary care, however, were more robust to this potential source of bias, because healthier patients tend to use less care of all types (including primary care), yet we found higher primary care use among senior-focused primary care patients. Thus, if the results for quality and acute care use were biased away from the null, the reverse results for primary care may have been biased toward the null.

The more intensive use of primary care by senior-focused primary care patients was partially attenuated by adjustment for the payment arrangement between providers and the insurer under study. We measured the presence of a risk contract with one insurer only, but organizations face payment incentives across payers, which dictates providers' approaches to care delivery. Compared with other primary care organizations that may have a mix of payment contracts with insurers, senior-focused primary care organizations are predominantly in full-risk contracts with MA insurers. This provides stronger incentives for systemic changes in care delivery that attract more (MA) patients and limit unnecessary use.[16]

Although we cannot confidently conclude that senior-focused primary care organizations lowered acute care use, we note that the potential differences in hospitalizations and ED visits were more consistently sizable than the mostly modest and inconsistent differences in performance on quality measures, particularly when the analysis was limited to providers in two-sided risk arrangements. This suggests that any reductions in acute care use by senior-focused primary care may have been mediated less by better disease control and more by substituting primary care for acute care (for example, redirecting patients from the ED to the clinic) or by reducing unnecessary and wasteful admissions directly. Likewise, we could not determine whether any gains in quality were attributable to measure-specific payment incentives in the MA quality program or were a byproduct of greater use of primary care.

Taken together, our findings provide additional evidence on the scope and impact of payment reform in the Medicare program. The senior-focused primary care organizations included in this analysis are largely new, for-profit entrants that emerged in response to the growth of population-based payment arrangements in MA. That these organizations appear to be delivering differentiated care and outcomes suggests that population-based payment reform might be an effective mechanism not only to change the existing delivery system but also to catalyze the development and growth of new organizations and care models. As these organizations increasingly serve traditional Medicare beneficiaries in programs such as ACO REACH, it will be important to see whether these findings replicate in other populations. Our findings suggest that ad-

justing benchmarks in population-based payment models to explicitly support health equity, a direction for payment policy recently initiated in ACO REACH, holds promise for improving care for underserved populations if that direction became more pervasive across payers. ■

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NOTES

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