Potential Spillover Effects on Traditional Medicare When Physicians Bear Medicare Advantage Risk

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Two-sided risk payment models are those that include both upside and downside risk; providers can receive bonuses if they meet performance targets but may also be required to pay the health plan if costs exceed those targets. As such, they place providers at substantial financial risk for cost and quality of care. These payment models are key to implementing value-based care, with CMS having a stated goal of all CMS beneficiaries being in 2-sided risk arrangements by 2030. These payment models are common in Medicare Advantage (MA) but less so under traditional Medicare (TM) and other insurance settings. In 2022, 24% of MA beneficiaries were covered under 2-sided risk arrangements compared with only 9.8% of TM beneficiaries.[1] Furthermore, 2-sided risk arrangements under MA involve much more uncapped financial risk than even the most stringent of such arrangements for TM beneficiaries (eg, the Accountable Care Organization Realizing Equity, Access, and Community Health Model). Past studies have documented the substantial benefits of 2-sided risk payment models in MA for beneficiaries directly subject to them.[2-4] Unfortunately, no studies have looked specifically at the association between exposure to 2-sided MA risk payment arrangements and outcomes for non-MA patients.

This gap in the literature is regrettable given that much of the value of MA risk payment models could come from their spillover benefits to Medicare beneficiaries outside MA. The overall magnitude of this broader impact could thus be especially significant considering that patients cared for under MA risk payment models already constitute a meaningful share of many physicians' patient panels.[2]

The association between MA risk payment arrangements and TM outcomes could arise at the level of individual physicians whose treatment patterns may exhibit convergence across patients. This tendency of individual physicians to treat different patients similarly could result in spillover effects from one patient population and payment model to another.[5] However, spillover effects on TM beneficiaries may be less pronounced than their effects on covered MA beneficiaries given that certain benefits relate to the infrastructure of MA risk models. For example, chronic disease care management and social worker and community health worker

ABSTRACT

OBJECTIVE: The relationship between Medicare Advantage (MA) risk payment arrangements and outcomes for patients in traditional Medicare (TM) has not been empirically examined. The objective of this study was to determine whether providers with greater exposure to MA risk payments are associated with superior outcomes for their TM patients.

STUDY DESIGN: Retrospective, cross-sectional regression analysis.

METHODS: Using 2016-2019 Medicare claims, this analysis of TM beneficiaries compared quality and efficiency when care is provided by physicians with high exposure to MA risk payments vs physicians with lower risk exposure. The exposure was physician group exposure to MA risk payments, and the main outcomes were 26 quality and efficiency measures.

RESULTS: Our overall sample comprised 22,257,955 TM beneficiary-years. After we adjusted for demographic differences and risk scores, receiving care from a physician with high risk exposure was associated with higher quality and efficiency across 22 of 26 measures. Improvements in the 22 measures ranged from 3% to 82%.

CONCLUSIONS: Our study is the first to examine the association between providers' exposure to MA risk payments and the outcomes they achieve beyond MA, specifically for their TM patients. We found that quality and efficiency outcomes for TM patients were higher under physician groups with high MA risk exposure. Although our study is not causal in nature, to the extent that such a relationship exists, it suggests that the benefits of MA risk payment arrangements extend beyond MA. Consequently, if more MA lives become subject to risk payment arrangements, the magnitude of potential benefits to the TM program could further increase.

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support to address health-related social needs will not necessarily extend to those in TM. Specifically, much of this care management infrastructure that drives success in MA models is restricted to beneficiaries within these MA contracts because TM does not cover the cost of this infrastructure for its beneficiaries.

To examine the relationship between MA payment arrangements and outcomes for the broader TM population, we compared a TM population cared for by physicians with high MA risk exposure with a TM population cared for by other physicians with lower MA risk exposure. We compared health resource utilization and quality of care across these 2 cohorts to quantify the association between physicians' MA risk exposure and the outcomes they achieve for their TM patients. Although our study is not causal in nature, our findings provide some preliminary evidence and lay the groundwork for further analysis on this topic.

TAKEAWAY POINTS

- Quality and efficiency of care for traditional Medicare (TM) beneficiaries may differ when provided by physicians with high Medicare Advantage (MA) risk payment exposure. We examined care by these physicians compared with those with lower MA risk exposure.
- Among TM beneficiaries, care by physicians with high MA risk exposure was associated with higher quality and efficiency outcomes across 22 of 26 measures encompassing 4 domains of patient care compared with care by TM physicians with lower MA risk exposure.
- High levels of MA risk exposure among physicians were associated with higher quality and efficiency outcomes for their TM patients.

METHODS

Study Oversight

This study was approved by an external institutional review board (IRB), Solutions IRB. Because the study design involved retrospective analysis of preexisting deidentified data, it qualified as non–human subjects research under IRB protocol and was exempt from further review.

Study Data

The study used standard deidentified Medicare claims from CMS as well as a proprietary data set of physician groups (**eAppendix Table 1** [eAppendix available at **ajmc.com**]) that tracked MA risk payment arrangements. Data covered the 2016 to 2019 calendar years.

The CMS Medicare data tracked health resource utilization and outcomes for TM beneficiaries across the full spectrum of Medicare paid services across inpatient, outpatient, pharmaceutical, and postacute settings.

The physician group data set tracked the level of MA risk exposure of primary care physicians (PCPs) from 17 physician groups participating in our study. From these data, we identified a subset of 9 physician groups (5046 PCPs) that had at least 50% of their MA patients under 2-sided risk contracts and defined that as our PCP cohort with high MA risk exposure. We then identified the TM beneficiaries attributed to these PCPs with high risk exposure. Using detailed information we obtained on the risk makeup for each of these groups with high risk exposure, we quantified the specific degree of risk exposure that the groups were subject to and how much more pronounced this exposure was relative to the cohort with lower risk exposure.

Sample and Cohorts

We restricted our cohort of TM beneficiaries to the 20% Medicare sample of those covered in 2016 to 2019 to avoid confounding related to utilization and disruptions experienced during the COVID-19 pandemic. We then restricted beneficiary-year combinations to individuals enrolled in both Medicare Part A and Part B for all 12 months of those years. Our sample included patients eligible for Medicare and Medicaid (dually eligible), non–dually eligible patients, and those both younger and older than 65 years. We next limited our sample to those staying in TM throughout the entire calendar year. Additionally, we limited the sample to beneficiaries for whom there was at least 1 primary care visit—a prerequisite for successfully attributing a beneficiary to a PCP (**eAppendix Figure**).

To construct patient cohorts, we first attributed patients to individual PCPs using standard Medicare Shared Savings Program methodology. We then identified individual patients cared for by a physician group with higher MA risk payment exposure based on whether their attributed PCP was on the roster of the 9 physician groups with high risk exposure that we identified. Finally, we constructed 2 distinct patient cohorts: those attributed to 1 of the 9 physician groups with high risk exposure, and a 20% random sample of TM beneficiaries receiving care from all other physicians (the lower risk-exposure cohort). The expected differential in MA risk payment exposure between these 2 cohorts was substantial: We found 71% of MA beneficiaries in the high risk-exposure cohort to be under global, 2-sided risk contracts compared with an average of 24% across MA generally.[1] We would expect the share of MA risk beneficiaries in our lower risk-exposure comparison group to generally mirror the 24% across all of MA.

Statistical Methodology

Using a cross-sectional study design, we compared the TM beneficiary cohort served by physicians with high risk exposure against a 20% random sample of TM beneficiaries served by all other physicians from 2016 to 2019. To reduce potential confounding from patient-mix differences across the 2 cohorts, we used a robust set of patient-level controls. These controls included age, sex, race, dual-eligibility status, state of residence, composite Hierarchical Condition Category (HCC) version 24 risk adjustment factor score, and indicators for different high-level disease categories (based on high-level HCC groupings). We were unable to control for differences in physician mix across the 2 cohorts beyond basic characteristics such as state.

For our primary analysis, we employed a binary logistic model, representing all measures as binary indicators rather than using

their original value given the relatively low odds of the measures. For our secondary analyses, we ran regressions on the original values using a zero-inflated negative binomial model. All models were adjusted for age groups, sex, race/ethnicity, state of residence, dual-eligibility status, calendar year, HCC score, and high-level HCC groupings for blood, cardiovascular disease, diabetes, injury, kidney, liver, lung, neoplasm, psychiatric, skin, and substance use disorder.

RESULTS

The final study cohort comprised 22,257,955 TM beneficiary-years (**Table 1**), of which 6% were covered by physician groups with high risk exposure and 94% by physician groups with lower risk exposure. The mean patient ages in these cohorts were 73 and 72 years, respectively. The mean HCC score was 1.40 for the higher risk-exposure cohort and 1.29 for the lower risk-exposure cohort.

We grouped the outcome measures into 4 domains of patient care: avoidance of disease-specific admissions, outpatient care, emergency department (ED) care, and inpatient care (all measure definitions in **eAppendix Methods**). In regression analyses that adjusted for patient-mix differences across the cohorts, we found that TM beneficiaries cared for by physicians with high risk exposure were associated with superior utilization and quality outcomes across 22 of 26 measures compared with the lower risk-exposure cohort. For the 4 remaining measures, the 2 cohorts had effectively equivalent outcomes (**Table 2** and **Figure**).

For avoidance of disease-specific admissions, the odds of inpatient admission in the high risk-exposure cohort compared with the lower risk-exposure cohort for heart failure, chronic obstructive pulmonary disease exacerbation, urinary tract infection, and bacterial pneumonia were 9% to 18% lower. The odds of preventable acute and chronic admissions were 13% and 11% lower, respectively. The odds of preventable admission for diabetes were 11% lower. For outpatient care measures, in the high risk-exposure cohort, the odds of an annual wellness visit were 82% higher; the odds of adherence to drugs for hypertension, diabetes, and hyperlipidemia were 9% to 13% higher; and the odds of office visits were 61% higher. In the high risk-exposure cohort, the odds of being prescribed a high-risk drug were 5% lower. For ED care, the odds of ED utilization across 4 measures ranged from 3% to 21% lower in the high risk-exposure cohort. For inpatient measures, the odds of acute inpatient admission and 30-day readmission were 10% and 12% lower, respectively, for the high risk-exposure cohort. There was no statistically significant difference between the cohorts for 4 outcomes: inpatient admissions for hypertension, surgical admission count, elective surgical admission count, and nonelective surgical admission count.

DISCUSSION

We found that TM beneficiaries cared for by physicians with high MA risk exposure were associated with meaningfully better quality and utilization outcomes compared with those whose care was provided by physicians in the lower risk-exposure cohort. These results persisted even after adjusting for differences in patient-level characteristics. Our study does not fully establish causality because we were unable to fully adjust for differences in physician characteristics across the 2 cohorts. However, to the extent that we identified a causal relationship, our results point to potential spillover effects of MA risk-based payments. The results also suggest broader benefits of MA risk payment arrangements than estimated by previous studies, which accounted only for benefits to MA beneficiaries and not the broader TM population.[2-4]

One explanation for possible spillover effects from MA risk payment arrangements could be an associated improvement in practice skills, which would also benefit TM beneficiaries. Such improvements could include increased focus on preventive care, the use of evidence-based medicine to drive care decisions, selective referral to high-performing specialists and facilities, and reduction in low-value care. Previous studies have provided theoretical and empirical support for this explanation and for physicians adopting relatively uniform standards of care across patients, with improvements in care to one group consequently spilling over to other patients.[5] Empirical support for this concept has been found across several different contexts, including Medicaid vs private-pay patients in the context of nursing homes[6] and health maintenance organization (HMO) vs non-HMO patients in the context of overall treatment intensity.[7] Our study contributes to this existing literature and suggests that physicians with greater MA risk payment arrangements adopt a distinct set of care standards that also extend to their TM populations.

The benefit of MA risk payments on MA beneficiaries appears to be substantially greater than these potential spillover benefits to the TM beneficiaries based on past studies.[2,4] This difference is also consistent with existing literature showing a substantial gap in outcomes persisting between risk-based MA and fee-for-service MA beneficiaries as well as between risk-based MA and TM beneficiaries.[2,8-10] The difference could be due to the substantial infrastructure that gets built around these risk-based payment systems, to which beneficiaries covered by these arrangements would have access but TM beneficiaries would not. This infrastructure includes, but is not limited to, population risk stratification to inform chronic disease care management, provider performance reporting and feedback, intensive case management, social worker and community health worker support to address health-related social needs, and integrated behavioral health care and pharmacy services. Two-sided risk payment effectively finances these supports and interventions, but only for the MA population.

Our study also contributes to the broader literature on MA risk payments and around spillover effects. Past studies have found evidence of superior quality and cost outcomes under MA compared with TM[9] and suggest that a major driver of MA's superior performance comes from its use of 2-sided risk-based payment arrangements with providers.[2] Past literature has also shown that reductions in

TABLE 1. Descriptive Characteristics of Sample

Characteristics	Study groups		
	All patients	TM patients cared for by physicians with high MA risk exposure	All other TM patients
Cohort: total member-years, n (%)	22,257,955 (100.0%)	1,399,635 (100.0%)	20,858,320 (100.0%)
Age in years, mean (SD)	72.24 (11.64)	73.39 (10.95)	72.16 (11.68)
Age groups in years, n (%)			
< 64	3,230,564 (14.5%)	155,746 (11.1%)	3,074,818 (14.7%)
65-69	4,779,975 (21.5%)	296,048 (21.2%)	4,483,927 (21.5%)
70-74	5,051,555 (22.7%)	324,181 (23.2%)	4,727,374 (22.7%)
75-79	3,732,757 (16.8%)	247,856 (17.7%)	3,484,901 (16.7%)
≥ 80	5,463,104 (24.5%)	375,804 (26.9%)	5,087,300 (24.4%)
Sex, n (%)			
Female	12,677,884 (57.0%)	804,105 (57.5%)	11,873,779 (56.9%)
Male	9,580,071 (43.0%)	595,530 (42.5%)	8,984,541 (43.1%)
Race/ethnicity, n (%)			
American Indian/Alaska Native	124,801 (0.6%)	1608 (0.1%)	123,193 (0.6%)
Asian/Pacific Islander	644,089 (2.9%)	166,222 (11.9%)	477,867 (2.3%)
Black or African American	1,859,274 (8.4%)	73,030 (5.2%)	1,786,244 (8.6%)
Hispanic	1,309,873 (5.9%)	262,452 (18.8%)	1,047,421 (5.0%)
Non-Hispanic White	17,807,879 (80.0%)	849,843 (60.7%)	16,958,036 (81.3%)
Other	174,251 (0.8%)	23,373 (1.7%)	150,878 (0.7%)
Unknown	337,788 (1.5%)	23,107 (1.7%)	314,681 (1.5%)
Census divisions, n (%)			
East North Central	3,432,493 (15.4%)	62,945 (4.5%)	3,369,548 (16.2%)
East South Central	1,395,976 (6.3%)	1029 (0.1%)	1,394,947 (6.7%)
Mid-Atlantic	2,719,955 (12.2%)	2564 (0.2%)	2,717,391 (13.0%)
Mountain	1,416,696 (6.4%)	13,320 (1.0%)	1,403,376 (6.7%)
New England	1,286,882 (5.8%)	37,849 (2.7%)	1,249,033 (6.0%)
Other[a]	73,089 (0.3%)	493 (0.0%)	72,596 (0.3%)
Pacific	3,335,505 (15.0%)	1,044,354 (74.6%)	2,291,151 (11.0%)
South Atlantic	4,555,202 (20.5%)	4653 (0.3%)	4,550,549 (21.8%)
West North Central	1,604,151 (7.2%)	3729 (0.3%)	1,600,422 (7.7%)
West South Central	2,438,006 (11.0%)	228,699 (16.3%)	2,209,307 (10.6%)
Dually eligible, n (%)	4,508,960 (20.3%)	409,902 (29.3%)	4,099,058 (19.7%)
HCC version 24 score, mean (SD)	1.29 (1.24)	1.40 (1.33)	1.29 (1.23)
HCC groups, n (%)			
Blood (HCCs 2, 46, 48)	1,796,764 (8.1%)	146,447 (10.5%)	1,650,317 (7.9%)
CVD (HCCs 82-88, 96, 99, 100, 107, 108)	8,072,700 (36.3%)	531,836 (38.0%)	7,540,864 (36.2%)
Diabetes (HCCs 17-19)	6,309,320 (28.3%)	432,429 (30.9%)	5,876,891 (28.2%)
Injury (HCCs 166-168)	626,258 (2.8%)	41,229 (2.9%)	585,029 (2.8%)
Kidney (HCCs 134-138)	3,103,486 (13.9%)	239,071 (17.1%)	2,864,415 (13.7%)
Liver (HCCs 27, 28)	236,775 (1.1%)	18,490 (1.3%)	218,285 (1.0%)
Lung (HCCs 111, 112, 114, 115)	3,498,602 (15.7%)	201,958 (14.4%)	3,296,644 (15.8%)
Neoplasm (HCCs 8-12)	2,920,962 (13.1%)	188,765 (13.5%)	2,732,197 (13.1%)
Psychiatric (HCCs 57-60)	2,770,929 (12.4%)	212,491 (15.2%)	2,558,438 (12.3%)
Skin (HCCs 157-159, 161, 162)	748,762 (3.4%)	47,482 (3.4%)	701,280 (3.4%)
Substance use disorder (HCCs 54-56)	741,735 (3.3%)	53,262 (3.8%)	688,473 (3.3%)

CVD, cardiovascular disease; HCC, Hierarchical Condition Category; MA, Medicare Advantage; TM, traditional Medicare.

[a]"Other" category includes racial and ethnic minority groups other than Black, Hispanic, Asian, or North American Natives.

TABLE 2. Unadjusted Comparison of Efficiency and Quality Outcome Measures, Measurement Year 2019[a]

Domain	Outcome measure	All patients	TM patients cared for by physicians with high MA risk exposure	All other TM patients
		Per thousand, mean (SD)		
Dis	COPD/asthma IP admissions: older adult	7.0 (106.6)	5.1 (88.6)	7.2 (107.8)
Dis	Hypertension IP admissions	1.7 (46.1)	1.7 (46.0)	1.7 (46.1)
Dis	Heart failure IP admissions	13.7 (154.1)	12.6 (152.3)	13.8 (154.2)
Dis	Bacterial pneumonia IP admissions	5.9 (80.9)	4.4 (69.4)	6.0 (81.7)
Dis	Urinary tract infection IP admissions	5.2 (78.9)	4.8 (74.8)	5.2 (79.1)
Dis	Diabetes lower-extremity amputation	0.9 (34.3)	0.7 (33.4)	0.9 (34.4)
Dis	PQI-91 acute composite	11.1 (114.0)	9.2 (102.9)	11.3 (114.8)
Dis	PQI-92 chronic composite	27.9 (226.4)	24.7 (215.5)	28.1 (227.1)
Dis	PQI-93 diabetes composite	5.4 (99.7)	5.3 (97.1)	5.4 (99.9)
ED	ED visits	683.7 (1724.4)	609.7 (1652.3)	689.2 (1729.5)
ED	Avoidable ED visits	40.6 (288.7)	32.2 (234.9)	41.2 (292.2)
ED	Primary care–treatable ED	82.5 (400.7)	71.4 (386.2)	83.3 (401.7)
ED	IP through ED	181.3 (628.9)	187.4 (655.7)	180.8 (626.9)
IP	Acute IP admissions	247.9 (726.3)	237.9 (727.9)	248.6 (726.1)
IP	30-day readmissions	38.2 (313.8)	37.5 (326.9)	38.2 (312.8)
IP	IP discharge status count: SNF	49.8 (286.8)	45.2 (280.7)	50.1 (287.3)
IP	IP: surgery type count	81.2 (315.5)	75.8 (305.9)	81.5 (316.2)
IP	IP: medical type count	178.9 (637.0)	173.9 (645.0)	179.3 (636.4)
IP	Surgery: IP nonelective claim count	30.2 (188.6)	30.6 (191.5)	30.2 (188.4)
IP	Surgery: IP elective claim count	51.0 (240.3)	45.2 (225.9)	51.4 (241.4)
OP	High-risk drug use	102.2 (302.9)	96.2 (294.8)	102.6 (303.5)
OP	Office visits	9415.8 (7923.5)	10,502.2 (8726.5)	9335.4 (7854.8)
OP	Annual wellness visits	323.1 (467.6)	402.5 (490.4)	317.2 (465.4)
OP	Medication adherence: RAS[b]	87.4 (33.2)	87.0 (33.6)	87.5 (33.1)
OP	Medication adherence: diabetes[b]	74.6 (43.5)	75.1 (43.2)	74.6 (43.5)
OP	Medication adherence: statin[b]	87.4 (33.2)	87.1 (33.5)	87.4 (33.2)

COPD, chronic obstructive pulmonary disease; Dis, avoidance of disease-specific admissions; ED, avoidance of emergency department; IP, inpatient hospital care; OP, outpatient care; PQI, Prevention Quality Indicator; RAS, renin-angiotensin system; SNF, skilled nursing facility; TM, traditional Medicare.

[a]2019 data included as representative. See eAppendix Table 2 for all 4 years of data.

[b]Medication adherence in %.

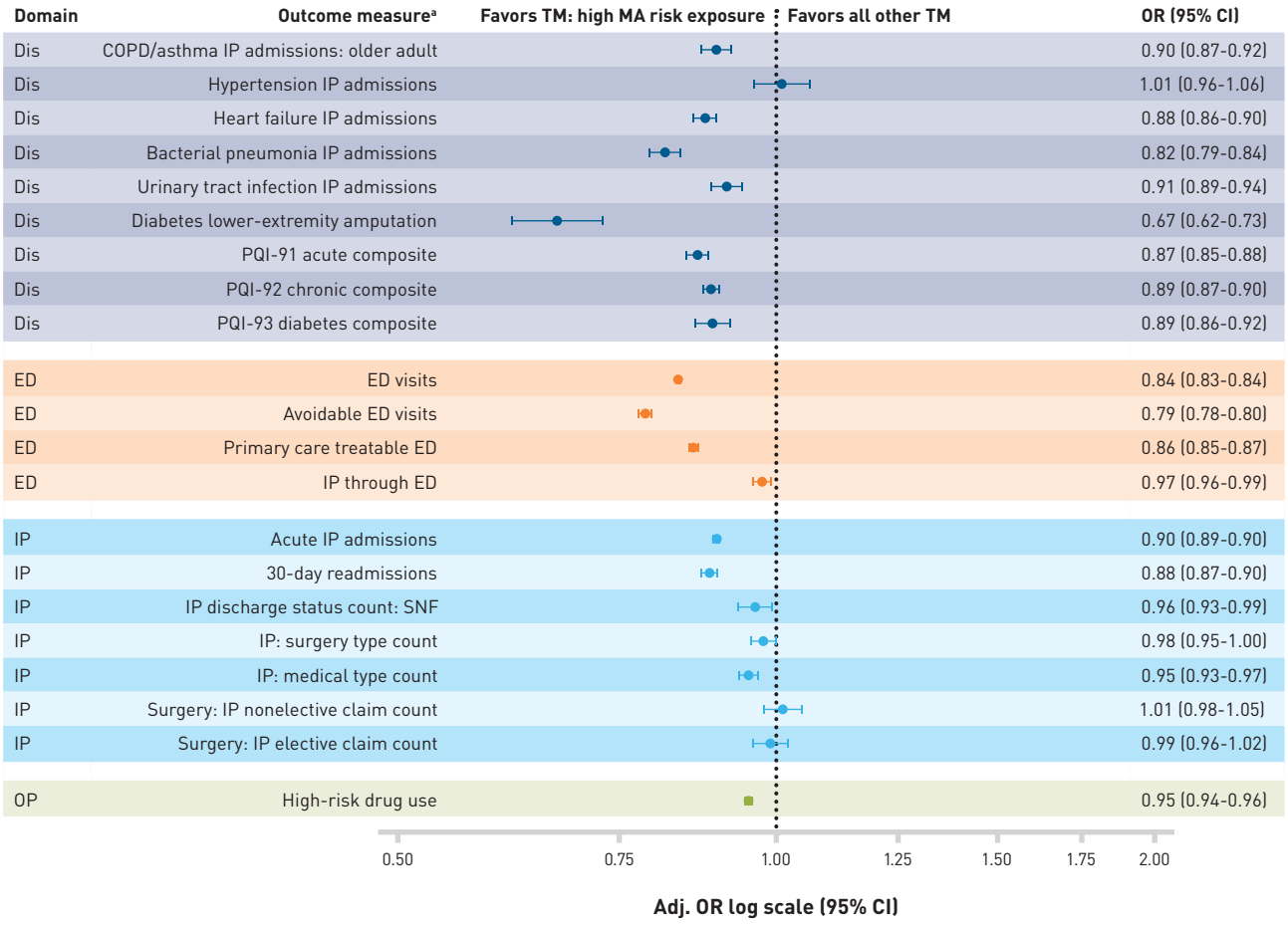
hospital and postacute care utilization in MA patients end up spilling over to TM,[5,11] suggesting that a naive comparison between MA and TM would understate the benefit of MA. We add to this literature by examining the association between MA payment arrangement and TM outcomes for one specific program component: 2-sided risk payment arrangements. Our study findings are consistent with other work that has shown the broader benefits of alternative payment arrangements that extend beyond just the population subject to them.[12,13]

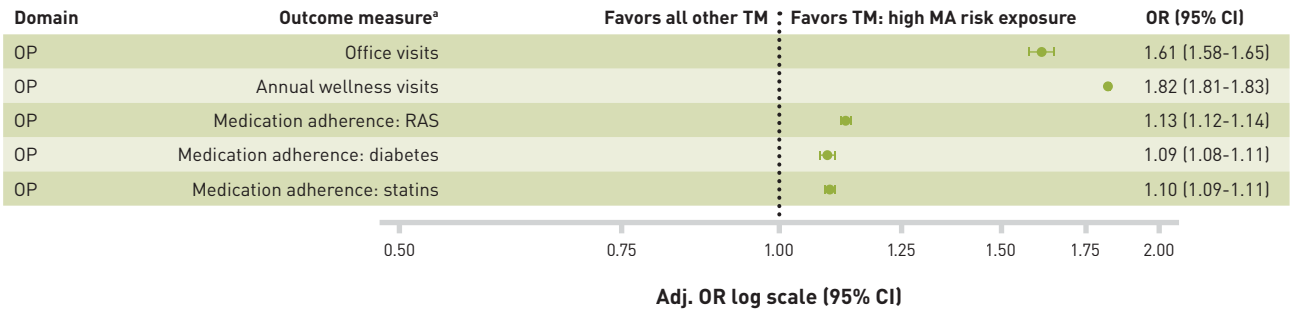
Our study has several important policy implications. To the extent that spillover benefits from MA risk payments exist, the magnitude of these benefits could be expected to increase due to ongoing increases in 2-sided risk payment arrangements within MA itself as well as in MA's expanding share of Medicare enrollment. Because 2-sided risk MA arrangements include a PCP assignment, our results also point to the valuable role of PCP-centric care. Our results also add to existing evidence of superior outcomes under MA risk payment arrangements because a prerequisite to there being spillover effects on non-MA patients is the existence of substantial effects on MA patients themselves. Importantly, because both patient cohorts in this study were receiving care under TM, issues potentially biasing estimates of the effects of MA risk payments on clinical outcomes, such as coding intensity, chart reviews, or favorable selection, should not impact our estimates. Altogether, our results provide additional suggestive evidence around the benefits of MA risk payment arrangements.

Limitations

As noted above, a key limitation to our study is that it captures the association between MA risk payment arrangements and TM outcomes but does not capture the causal impact of one on the other. Instead, our results could reflect the impact not just of MA

FIGURE. Forest Plot of Adjusted ORs for 26 Outcome Metrics: TM Patients Cared For by Physicians With High MA Risk Exposure vs All Other TM Patients





AOR, adjusted OR; CVD, cardiovascular disease; Dis, avoidance of disease-specific admissions; ED, avoidance of emergency department; HCC, Hierarchical Condition Category; IP, inpatient hospital care; MA, Medicare Advantage; OP, outpatient care; PQI, Prevention Quality Indicator; RAS, renin-angiotensin system; SNF, skilled nursing facility; TM, traditional Medicare.

[a]All outcomes, except for pharmacy-based measures, were modeled as probability of an event in the total cohort; therefore, the denominator was 1,399,635 for TM patients cared for by physicians with higher risk exposure and 20,858,320 for all other TM patients. High-risk drug use was modeled as probability of event in the subcohort with Part D coverage. Adherence measures were modeled as probability of having 80% or more adherence in the subsets who had Part D coverage and filled at least 1 prescription for the corresponding medication.

All models were adjusted for age groups, sex, race/ethnicity, state of residence, dual-eligibility status, calendar year, HCC version 24 score, and the following high-level HCC groupings: blood (HCCs 2, 46, 48), CVD (HCCs 82-88, 96, 99, 100, 107, 108), diabetes (HCCs 17-19), injury (HCCs 166-168), kidney (HCCs 134-138), liver (HCCs 27, 28), lung (HCCs 111, 112, 114, 115), neoplasm (HCCs 8-12), psychiatric (HCCs 57-60), skin (HCCs 157-159, 161, 162), and substance use disorder (HCCs 54-56).

risk payment arrangements but also of other differences between these 2 sets of physicians correlated with their risk payment adoption. Although we controlled for some physician characteristics, such as the geographic area where they practice, our controls are not necessarily exhaustive. This work provides a foundation for future research into the baseline characteristics of risk-bearing as opposed to non–risk-bearing physician groups. In addition, although we attempted to control for patient-mix differences between the 2 physician cohorts using a robust set of patient-level characteristics, some residual differences may remain unaccounted for.

Furthermore, although our estimates capture the impact of higher vs lower risk payment exposure, they do not capture the difference between having risk payment exposure vs not having it at all. This is because the lower risk-exposure cohort made up of other TM physicians will also have some MA risk payment exposure, with 24% of their MA payments expected to be under global 2-sided risk arrangements if their average mirrors that of all MA.[1] Meanwhile, for our cohort of physicians with high risk exposure, 71% of all MA beneficiaries are under global, 2-sided risk arrangements. Consequently, our results may reflect only the TM outcome difference associated with a 47–percentage point differential in MA risk exposure and thereby understate the TM outcome difference for patients of physicians who do not participate in 2-sided risk-based payments at all.

Finally, we did not account for differences across physicians in the share of their patient panel that MA broadly constitutes, and we effectively assumed that it is uniform. This is a limitation because MA's share of the patient panel could vary by physician.

CONCLUSIONS

Physicians with high MA risk exposure achieved superior quality and efficiency outcomes for their TM beneficiaries compared with all other TM physicians. Although our study does not prove causality, any relationship that exists may be indicative of a spillover effect of MA risk payment arrangements. Our study is the first to directly quantify the association between MA risk payment arrangements and quality and efficiency outcomes across the broader Medicare program. Therefore, to the extent that spillover effects exist, they would imply even greater benefits from MA risk arrangements than previously estimated. The policy implications of this are significant especially because any spillover effects would be expected to increase in the years ahead due to the increasing prevalence of risk payments within MA as well as the overall expansion of MA. Finally, our results add to existing evidence on better outcomes under MA risk payment arrangements given that a prerequisite to there being effects on non-MA patients is the existence of benefits to the MA patients themselves. ■

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