

Improving MedPAC's estimate of Medicare Advantage coding intensity

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Presentation overview

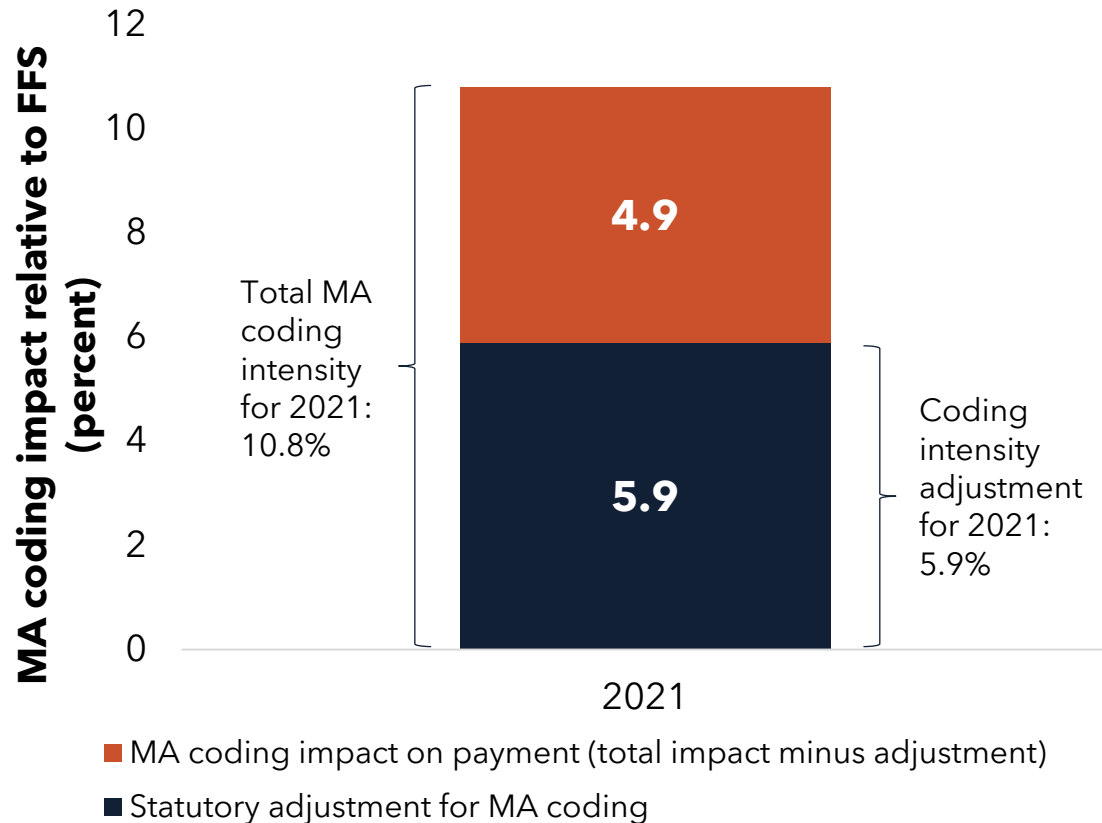
- 1 Background on MA payments and coding intensity
- 2 MedPAC's cohort method
- 3 Revising MedPAC's cohort method
- 4 Demographic estimate of coding intensity (DECI) method
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Medicare payments to MA plans are risk adjusted

- Medicare pays MA plans a capitated rate for each enrollee
 - Base payment amount × beneficiary-specific risk score
- CMS uses risk scores from CMS-hierarchical condition category (CMS-HCC) model to adjust payments
 - Increase payments for beneficiaries expected to be more costly
 - Decrease payments for beneficiaries expected to be less costly
- Risk scores are based on
 - Demographic characteristics
 - Prior year diagnoses grouped into HCCs

Notes: MA (Medicare Advantage). HCC (hierarchical condition categories).

MA coding generates excess payments annually



Note: MA (Medicare Advantage), FFS (fee-for-service). Estimate accounts for differences in age and sex between MA and FFS populations.

Source: MedPAC analysis of Medicare enrollment and risk score files, 2007 through 2021.

- Differences in diagnostic coding between FFS and MA
 - FFS: Less incentive to code diagnoses
 - MA: Financial incentive and infrastructure to code more diagnoses
 - Leads to greater MA risk scores for equivalent health status
- CMS annual adjustment for coding intensity does not fully account for MA coding intensity

Addressing MA coding intensity

- The Commission's recommendation addresses underlying causes of coding intensity (*March 2016*)
 - Remove health risk assessments (HRAs) from risk adjustment
 - Use two years of MA and FFS Medicare diagnostic data
- Chart reviews and HRAs are key drivers of coding intensity
 - Based on OIG findings, we estimate that chart reviews and HRAs account for nearly two-thirds of excess payments to MA plans
 - Use of chart reviews and HRAs varies substantially within MA, contributing to coding intensity variation across plans

Notes: Office of Inspector General (OIG).

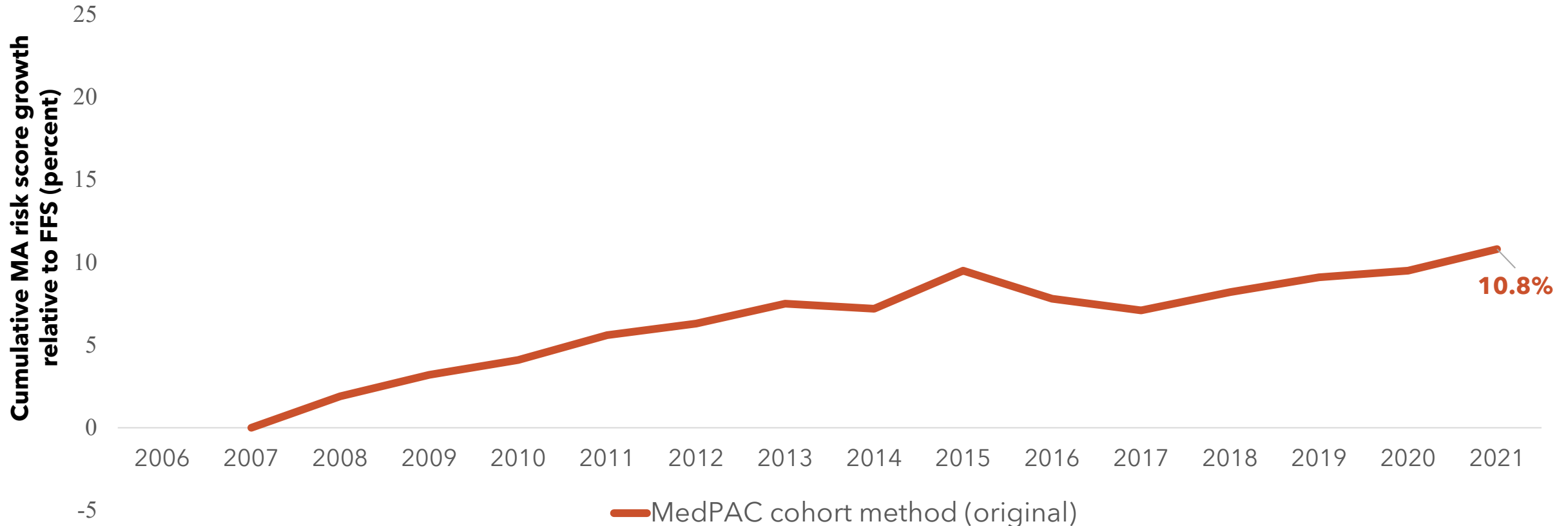
Source: MedPAC analysis of OIG report findings. Office of Inspector General, Department of Health and Human Services. 2021. *Some Medicare Advantage companies leveraged chart reviews and health risk assessments to disproportionately drive payments*. OEI-03-17-00474. Washington, DC: OIG.

MedPAC's cohort method for estimating the impact of MA coding intensity, 2021

- Compare MA and FFS cohorts by age, sex, and enrollment length
 - Enrollment length based on continuous enrollment in same program (MA or FFS)
 - Exclude beneficiaries with ESRD or institutional status
 - Constrain new enrollees to have no coding intensity
- For each age, sex, and enrollment cohort, calculate average disease score change between earliest enrollment year and 2021
 - "Disease score" is defined as a risk score minus demographic components
- Subtract FFS disease score change from MA for each matched cohort
- Sum differences in MA and FFS disease score change across all cohorts weighted by MA enrollment, divide by average 2021 MA risk score

Notes: MA (Medicare Advantage). FFS (fee-for-service). ESRD (end stage renal disease).

MedPAC cohort method shows that the impact of MA coding intensity has grown over time



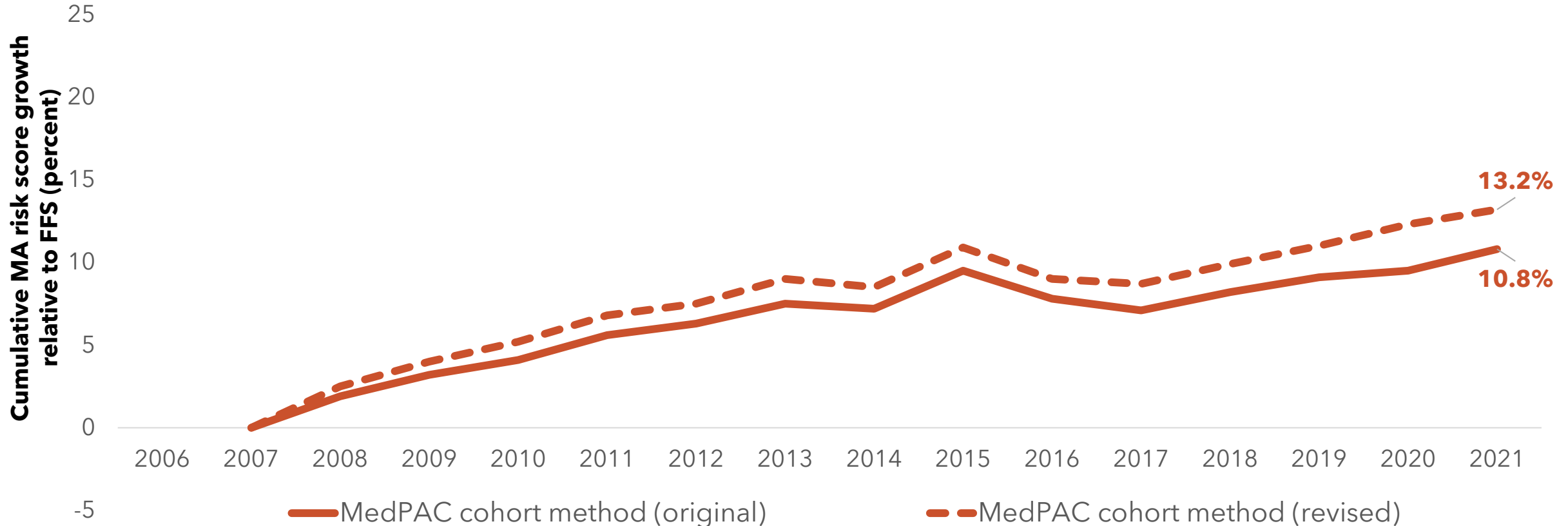
Notes: MA (Medicare Advantage). FFS (fee-for-service).
Source: MedPAC analysis of Medicare enrollment, risk score, and master beneficiary summary files, 2007 through 2021.

Revising MedPAC's cohort method

- Account for differing MA and FFS Medicaid eligibility shares
 - Since 2014, Medicaid enrollment share in MA has increased, while the enrollment share in FFS has decreased
 - Had little effect on MedPAC's revised cohort estimates on its own, but it contributed to a joint effect with removing the same program restriction
- Remove the restriction on continuous enrollment in the same program (MA or FFS)
 - Under the original method, early years of enrollment were more often truncated for MA enrollees, causing some bias in the analysis
 - Accounted for majority of the change in MedPAC's revised cohort estimates

Notes: MA (Medicare Advantage). FFS (fee-for-service).

Estimates from revised MedPAC cohort method are larger than estimates from MedPAC's original cohort method



Notes: MA (Medicare Advantage). FFS (fee-for-service).

Source: MedPAC analysis of Medicare enrollment, risk score, and master beneficiary summary files, 2007 through 2021.

Demographic estimate of coding intensity (DECI) method

	Risk score type	Average risk score	MA / FFS ratio	DECI estimate
Kronick & Chua's analysis (public data)	MA CMS-HCC	1.250	1.179	20.0%
	FFS CMS-HCC	1.069 ^a		
	MA demographic	b	0.975	
	FFS demographic	b		

Notes: MA (Medicare Advantage). FFS (fee-for-service). DECI (Demographic estimate of coding intensity).

^a Includes beneficiaries with Part A only.

^b Kronick and Chua did not report the underlying MA and FFS average demographic risk scores for 2019.

Sources: Kronick, R., and F.M. Chua. 2021. Industry-wide and sponsor-specific estimates of Medicare Advantage coding intensity. November 11. Available at <https://ssrn.com/abstract=3959446>.

Demographic estimate of coding intensity =

National average MA CMS-HCC risk score

National average FFS CMS-HCC risk score

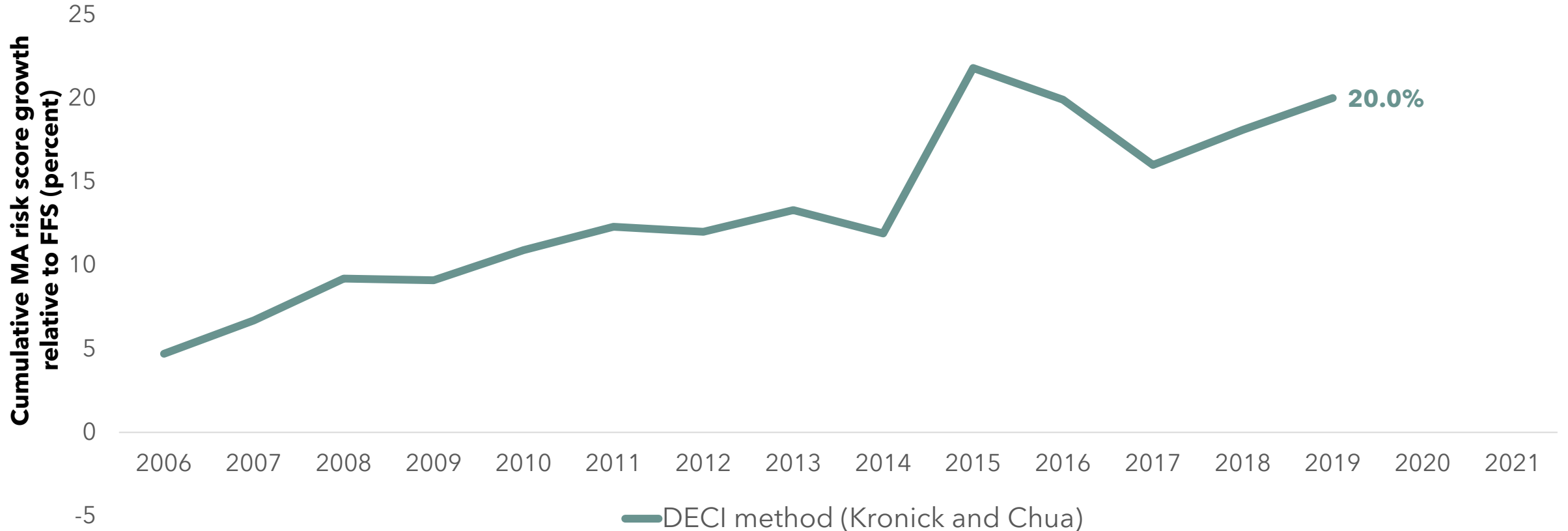
National average MA demographic only risk score

National average FFS demographic only risk score

Steps:

1. Calculate MA to FFS CMS-HCC risk score ratio
2. Calculate MA to FFS demographic risk score ratio
3. Divide CMS-HCC risk score ratio by demographic risk score ratio

MA coding intensity estimates based on DECI method as published by Kronick and Chua



Notes: DECI (Demographic estimate of coding intensity). MA (Medicare Advantage). FFS (fee-for-service).

Source: Kronick, R., and F.M. Chua. 2021. Industry-wide and sponsor-specific estimates of Medicare Advantage coding intensity. November 11. Available at <https://ssrn.com/abstract=3959446>.

Using complete data reduced the published DECI estimate for 2019 by 6.8 percentage points

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	FFS CMS-HCC	1.069 ^a		
	MA demographic	^b	0.975	
	FFS demographic	^b		
MedPAC's analysis (complete data)	MA CMS-HCC	1.260	1.127	13.2%
	FFS CMS-HCC	1.117		
	MA demographic	1.019	0.995	
	FFS demographic	1.024		

Notes: MA (Medicare Advantage). FFS (fee-for-service). DECI (Demographic estimate of coding intensity).

^a Includes beneficiaries with Part A only.

^b Kronick and Chua did not report the underlying MA and FFS average demographic risk scores for 2019.

Sources: Kronick & Chua 2021. MedPAC analysis of 2019 Medicare enrollment, risk score, and master beneficiary summary files.

- Using complete data, we found the Kronick and Chua:
 - FFS CMS-HCC risk score is too low because it includes Part A only beneficiaries (yellow)
 - MA / FFS demographic ratio is too low due to identification of beneficiary Medicaid eligibility and institutional status (red)

Revising the DECI method reduced the 2019 estimate by an additional 1.8 percentage points

Beneficiary Group	MA/FFS CMS-HCC ratio	MA/FFS demo. ratio	Group DECI est.	MA enroll share	2019 DECI estimate
New enrollees	1.000	1.000	1.000	8.1%	11.4%
Institutional	1.088	0.997	1.091	1.1	
No Medicaid	1.116	0.995	1.121	73.0	
Part. Medicaid	1.188	1.002	1.185	6.9	
Full Medicaid	1.157	1.040	1.112	10.9	

Notes: MA (Medicare Advantage). FFS (fee-for-service). DECI (Demographic estimate of coding intensity).

Source: MedPAC analysis of 2019 Medicare enrollment, risk score, and master beneficiary summary files.

- We revised the DECI method
 - to account for differing MA and FFS Medicaid eligibility and institutional status by calculating separate estimates
 - to constrain “new enrollees” to have no coding intensity as their risk scores are based on demographic factors only
- Revised DECI estimate for 2019 is an additional 1.8 percentage points lower

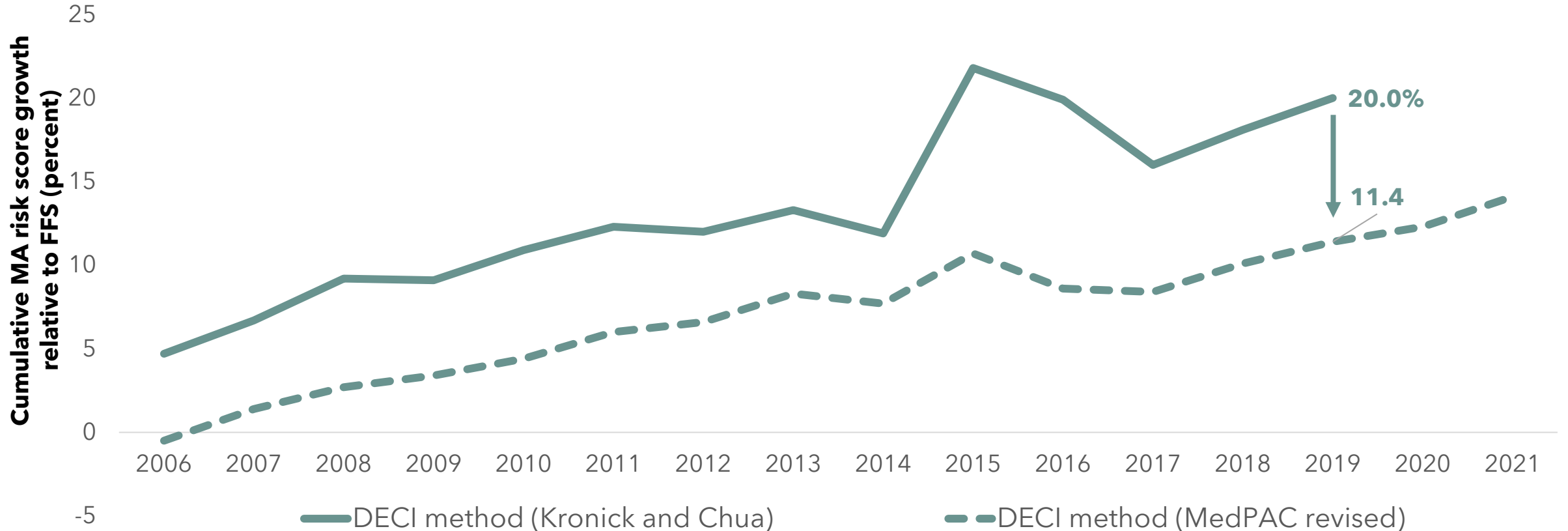
Using complete data and revising the DECI method decreased 2019 estimate by about 40 percent

	Estimate change	DECI estimate
Kronick and Chua's 2019 DECI estimate		20.0%
Restricting national average FFS CMS-HCC risk score to include only beneficiaries with Part A and Part B	-5.6%	14.4
Calculating MA to FFS demographic risk score ratio with complete Medicaid eligibility and institutional status data	-1.2%	13.2
Constraining new enrollees to have no coding intensity effect	-1.1%	12.1
Accounting for differing shares of MA and FFS beneficiaries eligible for Medicaid or with institutional status	-0.7%	11.4
MedPAC's revised 2019 DECI estimate		11.4%

Notes: DECI (Demographic estimate of coding intensity). HCC (hierarchical condition category). MA (Medicare Advantage). FFS (fee-for-service).
Source: MedPAC analysis of 2019 Medicare enrollment, risk score, and master beneficiary summary files.

- Restricting FFS CMS-HCC risk scores to beneficiaries with both Part A and B accounted for most of change in DECI estimate

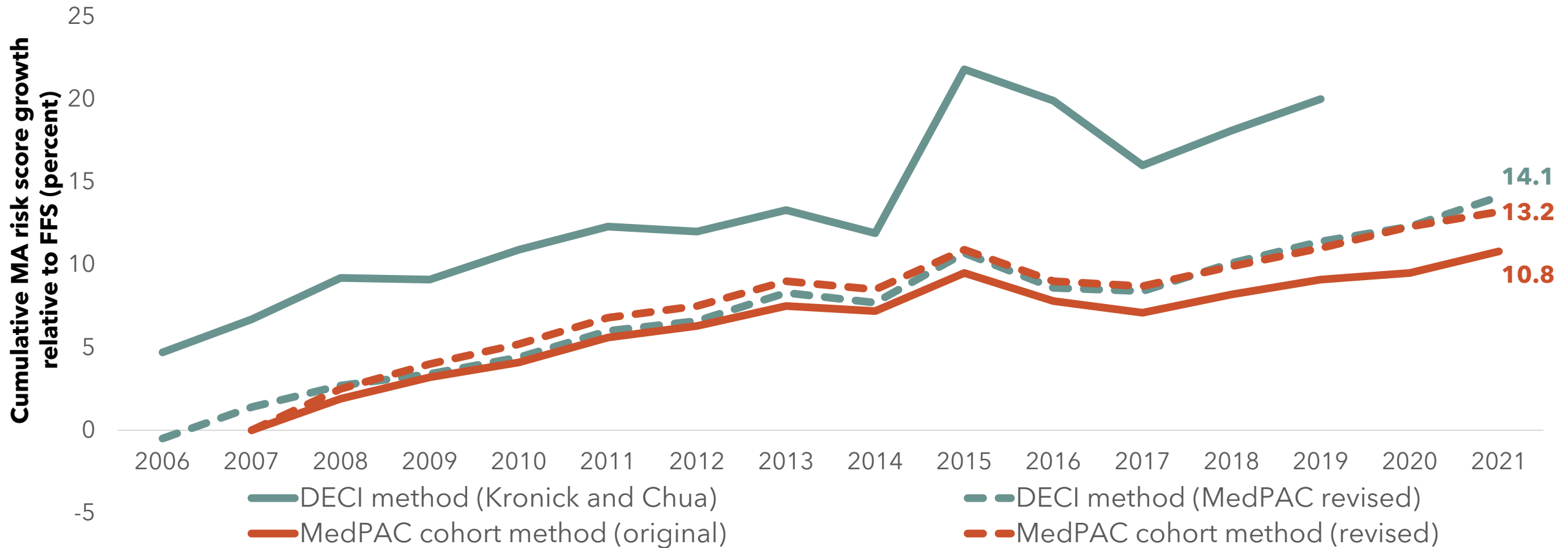
Using complete data and incorporating MedPAC's revisions reduced DECI estimates in all years



Notes: DECI (Demographic estimate of coding intensity). MA (Medicare Advantage). FFS (fee-for-service).

Source: Kronick, R., and F.M. Chua. 2021. Industry-wide and sponsor-specific estimates of Medicare Advantage coding intensity. November 11. Available at <https://ssrn.com/abstract=3959446>. MedPAC analysis of Medicare enrollment, risk score, and master beneficiary summary files, 2006 through 2021.

Estimates from MedPAC's revised DECI method and revised cohort method closely align, 2006 - 2021



Notes: DECI (Demographic estimate of coding intensity). MA (Medicare Advantage). FFS (fee-for-service).

Source: Kronick, R., and F.M. Chua. 2021. Industry-wide and sponsor-specific estimates of Medicare Advantage coding intensity. November 11. Available at <https://ssrn.com/abstract=3959446>. MedPAC analysis of Medicare enrollment, risk score, and master beneficiary summary files, 2006 through 2021.

Using the revised DECI method to estimate the impact of coding intensity in MedPAC's future work

- Both revised DECI and revised MedPAC cohort methods produce similar and accurate estimates of MA coding intensity
- DECI method is easier to implement
 - MedPAC's cohort method requires calculating disease scores for all beneficiaries and all years since 2007
 - MedPAC's cohort method requires a large and increasing number of sub-cohorts
- DECI method includes institutional beneficiaries and years of partial enrollment

Impact of adopting the revised DECI method for MedPAC's 2021 coding intensity estimate

- Under MedPAC's original cohort method we found that:
 - MA coding intensity was 10.8 percent in 2021
 - After accounting for the 5.9 percent adjustment, uncorrected coding intensity increased MA risk scores by 4.9 percent
- Using the revised DECI method, we find that:
 - MA coding intensity was 14.1 percent in 2021
 - After accounting for the 5.9 percent adjustment, uncorrected coding intensity increased MA risk scores by 8.2 percent
- Coding intensity estimates for prior years would be similarly revised

Discussion

- Questions about revisions to and analysis of the methods of estimating MA coding intensity presented today
- Feedback about adopting the revised DECI method for estimating the impact of MA coding intensity in future MedPAC analyses



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