

Traditional Medicare Supplemental Insurance and the Rise of Medicare Advantage

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Although Medicare has offered near-universal coverage for Americans 65 years and older since it was established, beneficiaries face a considerable cost-sharing burden if only enrolled in traditional Medicare (TM). For example, TM beneficiaries were responsible for 20% of outpatient services paid through Part B and a deductible of \$1365 in 2019 for Part A benefits, including hospital and skilled nursing facility stays.¹ Unlike most insurance in the US,² TM does not have an out-of-pocket maximum, meaning that beneficiaries with high expenditures can have very high out-of-pocket spending. National health expenditure was only 6% of the gross domestic product in 1965 when the Medicare cost-sharing structure was conceived. The out-of-pocket cost burden has likely grown with national health expenditure, which was 18% of the gross domestic product in 2021.³

Most TM beneficiaries obtain supplemental insurance to protect themselves against this cost-sharing burden.⁴ Beneficiaries can supplement TM by obtaining Medicaid or insurance from a current or former employer or by purchasing Medigap. Alternatively, beneficiaries can enroll in Medicare Advantage (MA). Although MA cannot be paired with supplemental insurance, except Medicaid, MA beneficiaries have lower self-reported health care cost burdens than those in TM without supplemental insurance.⁵ This may be due to differences in MA benefit design, such as the inclusion of an out-of-pocket maximum and the addition of supplemental benefits (eg, vision, dental) not provided by TM, although it could also be explained by other differences between MA and TM beneficiaries, such as health status.⁶

Between 2007 and 2019, enrollment in MA nearly doubled.⁷ TM supplemental insurance use also changed during this time through a decline in employer-sponsored insurance (ESI) and an uptick in Medigap enrollment.⁸⁻¹⁰ Moreover, enrollment patterns are known to vary by race, ethnicity, and income.^{8,11,12} Although recent trends in MA enrollment and supplemental insurance coverage in Medicare have been well documented separately, these trends are inextricably linked. Our contribution is to detail how the use of supplemental insurance coverage has changed with the increase in MA enrollment since 2005. We examine which types of supplemental coverage declined as MA

ABSTRACT

OBJECTIVES: Most Medicare beneficiaries obtain supplemental insurance or enroll in Medicare Advantage (MA) to protect against potentially high cost sharing in traditional Medicare (TM). We examined changes in Medicare supplemental insurance coverage in the context of MA growth.

STUDY DESIGN: Repeated cross-sectional analysis of the Medicare Current Beneficiary Survey from 2005 to 2019.

METHODS: We determined whether Medicare beneficiaries 65 years and older were enrolled in MA (without Medicaid), TM without supplemental coverage, TM with employer-sponsored supplemental coverage, TM with Medigap, or Medicaid (in TM or MA).

RESULTS: From 2005 to 2019, beneficiaries with TM and supplemental insurance provided by their former (or current) employer declined by approximately half (31.8% to 15.5%) while the share in MA (without Medicaid) more than doubled (13.4% to 35.1%). The decline in supplemental employer-sponsored insurance use was greater for White and for higher-income beneficiaries. Over the same period, beneficiaries in TM without supplemental coverage declined by more than a quarter (13.9% to 10.1%). This decline was largest for Black, Hispanic, and lower-income beneficiaries.

CONCLUSIONS: The rapid rise in MA enrollment from 2005 to 2019 was accompanied by substantial changes in supplemental insurance with TM. Our results emphasize the interconnectedness of different insurance choices made by Medicare beneficiaries.

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enrollment increased and investigate how this differs by race, ethnicity, and income.

METHODS

Conceptual Framework

We considered Medicare coverage as a bundle that includes coverage for Part A and Part B services, such as TM, plus a supplemental plan that may cover cost sharing or additional services. The beneficiary's choice of insurance bundle for Medicare is a 2-step process during which the beneficiary determines and then selects from the options available. This 2-step framework is critical because beneficiaries have differing options available to them based on qualifying criteria and affordability. First, beneficiaries may (or may not) have access to ESI through a former (or current) job, to TRICARE through past military service, or to Medicaid through income- and asset-based eligibility. Second, beneficiaries without these sources of coverage must compare the affordability of MA, TM with Medigap, and TM without supplemental coverage. A Medicare beneficiary may have to choose between enrolling in MA or adding Medigap to their TM coverage as alternative strategies to reduce the cost burden of TM without supplemental coverage. MA is therefore a substitute for TM and, potentially, a source of supplemental coverage that can be chosen after the beneficiary considers which option is most suitable for their needs.

The broader Medicare bundle also includes prescription drug coverage. Since the 2006 implementation of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA), Medicare beneficiaries have been able to obtain prescription drug coverage through Part D. MA beneficiaries have the option to obtain a combined MA and Part D plan. TM beneficiaries can obtain a stand-alone Part D plan. A small number maintain private prescription drug coverage.⁴ We simplify our analysis by not including the iterations of supplemental coverage with or without prescription drug coverage because our framework is robust to this added complexity. Different methods of obtaining prescription drug coverage may make certain insurance bundle options more or less attractive to beneficiaries.

Data

We used 2005-2019 data from the Medicare Current Beneficiary Survey (MCBS), an annual nationally representative survey of Medicare beneficiaries. It contains information on beneficiary demographics and insurance coverage as well as health care cost, quality, and access. The MCBS underwent a major change in 2014, so there was no survey that year. Crucially, the changes still allow accurate comparisons across both versions.¹³ We used the MCBS Access to Care module for 2005 to 2013 and the MCBS Survey File for 2015 to 2019.

Sample

We included all survey participants enrolled in Medicare Part A and Part B (N = 198,970) and excluded beneficiaries younger than 65 years

TAKEAWAY POINTS

Rising Medicare Advantage (MA) enrollment occurred alongside declines in enrollment in traditional Medicare (TM) with employer-sponsored supplemental coverage and TM without supplemental coverage.

- ▶ From 2005 to 2019, the increase in MA enrollment accompanied declining enrollment in employer-sponsored supplemental insurance, particularly for higher-income and White beneficiaries.
- ▶ The rise in MA was accompanied by a decline in enrollment in Medicare without supplemental coverage, particularly for lower-income, Black, and Hispanic beneficiaries.
- ▶ MA acts as an alternative form of inexpensive supplemental coverage at a time of declining affordable options for supplementing Medicare.

(n = 34,183) and those who died during the survey year (n = 2162). We used the MCBS cross-sectional weights, which are intended to examine data trends.¹³ Because of changes in the survey design, some beneficiaries from 2015 to 2019 are missing cross-sectional weights. We excluded these beneficiaries (n = 2804). Our sample included 162,625 beneficiary-years (weighted N = 522,322,183). Sample characteristics can be found in the [eAppendix Table](#) (eAppendix available at [ajmc.com](#)).

Outcome Variable

Our outcome of interest was the Medicare insurance coverage bundle—1 of 6 mutually exclusive categories: MA, TM only, TM and ESI, TM and Medigap, TM and TRICARE, and Medicaid (either TM or MA and regardless of any other supplemental insurance). For ESI and Medigap, we considered the individual to have the coverage only if it was general insurance (ie, we excluded individuals with other types of supplemental insurance, such as prescription drug or dental coverage). We referred to supplemental insurance sponsored by a current or former employer or union as ESI and other supplemental coverage as Medigap, following past research.¹⁴ We used only information obtained in administrative data to determine participation in Part A, Part B, MA, and Medicaid.

For patients with TM, supplemental coverage was determined hierarchically in the following order—ESI, Medigap, TRICARE, TM only—as in past work.¹⁴ We considered Medicaid as a separate group because eligibility and enrollment have remained relatively constant over time.¹⁵ In addition, these beneficiaries do not face the same cost sharing as others, so their decision about whether to enroll in MA or TM is likely not comparable with that of other beneficiaries. For 2005 to 2013, insurance variables were reported at the time of the survey interview, usually in the summer or fall of the survey year. To ensure consistent coding across periods with different survey versions, we also used insurance status at a specific point in time (July) for 2015 to 2019.

Beneficiary Characteristics

We had 2 beneficiary characteristics of interest in addition to year. First, we examined differences in changes over time by race/ethnicity. We used self-reported race/ethnicity, which is the gold

standard for determining race/ethnicity.^{12,16} Following past research, we categorized beneficiaries as White, Black, Hispanic, and other.¹² Second, we characterized beneficiaries by their income. To account for inflation and rising real incomes, we used an approximation of above and below median income in the survey year. Unfortunately, the 2004–2013 Access to Care module did not contain a continuous variable for income. We therefore approximated the median value from a categorical variable, which, although imperfect, was able to relatively accurately distinguish between those with high and low incomes. The **eAppendix Figure** shows that our measure closely approximates the median by splitting the sample into 2 approximately equal-size subsets that have higher vs lower incomes. Before 2014, the percentage of included beneficiaries with incomes above the approximate median income ranged from 45.3% to 54.7%, which closely approximates the precise share of 50%. In addition, before 2014, income missingness was not imputed for all participants—as it was after 2014. We excluded those with missing income data from the income subgroup analyses. We referred to those with incomes at or above the approximate median income as “higher income” and those with incomes below the approximate median as “lower income.”

Statistical Analysis

We calculated the percentage of beneficiaries enrolled in each insurance category over time, overall, and by race/ethnicity and income. We present the rates of insurance use in 2005 and 2019 overall and by race, ethnicity, and income by calculating the percentage point difference, the percent change from 2005, and the percentage point change expressed as a percentage of MA growth in the subgroup. We calculated *P* values testing whether the probability of participating in the given insurance category differed between 2005 and 2019 using bivariate ordinary least squares regression. We did so overall and for each subgroup. We used balanced repeated replication to calculate the SEs used to construct the *P* values.

RESULTS

In 2005, 13.4% of beneficiaries had MA (without Medicaid) and 31.8% had TM and ESI. By 2019, 35.1% of beneficiaries had MA and 15.5% had TM and ESI. TM-only use decreased from 13.9% to 10.1%, a decline of more than a quarter. TM and Medigap use declined modestly from 25.9% to 23.2%. Medicaid (TM or MA) and TM and TRICARE use remained relatively constant, and differences were not statistically significant (**Table**). Trends over time are shown in **Figure 1**. Of note is that the change in TM and Medigap use was not constant over the period; it declined from 25.9% in 2005 to a minimum of 19.1% in 2012 before beginning to increase again, reaching 23.2% in 2019.

These changes were not uniform across beneficiary groups. For higher-income beneficiaries, the only statistically significant changes were the increase in MA use and the decrease in TM and ESI use. In **Figure 2**, we demonstrate that the change in TM and

ESI use expressed as a percentage of MA growth was close to 100% (101.3%). This suggests that for higher-income beneficiaries, the rise in MA use can be explained by the decline in TM and ESI use. For lower-income beneficiaries, the decline in TM and ESI use represented only 67% of the increase in MA growth (**Figure 2**). There were also statistically significant declines in TM-only use and TM and Medigap use for lower-income beneficiaries, whereas the rate of Medicaid use increased (**Table**).

We also found differences by race/ethnicity. Expressed as a percentage of 2005 enrollment rates, the decline in TM and ESI use was relatively similar for White (50.6%), Black (55.6%), Hispanic (46.2%), and other (43.1%) beneficiaries. However, because White beneficiaries had much higher rates of TM and ESI use in 2005, the percentage-point decline was largest for this group. As a result, White beneficiaries had the highest rate of decline in TM and ESI use as a percentage of MA growth (**Figure 3**). All race/ethnicity groups had decreases in TM-only use; however, the declines were larger for Black, Hispanic, and other beneficiaries than they were for White beneficiaries. These declines from 2005 rates were particularly large for Black and Hispanic beneficiaries, at 42.5% and 51.6%, respectively (**Table**). As a result, the decline in TM-only use was a larger share of MA growth for Black, Hispanic, and other beneficiaries (**Figure 3**). There were also statistically significant declines in TM and Medigap use for Black and Hispanic beneficiaries (**Figure 1**). In addition, Medicaid use grew for Hispanic beneficiaries (**Table**).

DISCUSSION

During the rapid increase in MA enrollment from 2005 to 2019, we found that the corresponding decline in TM occurred primarily when bundled with employer-sponsored supplemental insurance and when TM was not bundled with any supplemental insurance. The decline in TM without supplemental coverage, from 13.9% to 10.1% of Medicare beneficiaries, had positive implications for beneficiary cost burden because those in MA reported fewer cost-related barriers than those in TM without supplemental coverage.⁵ The decline in TM with ESI may not have been similarly beneficial because MA beneficiaries report more cost-related issues than those with TM and supplemental coverage.⁵

We found important differences in changes in supplemental insurance use over time by race, ethnicity, and income. The decline in TM without supplemental coverage was largest for Black, Hispanic, and lower-income beneficiaries. Insurance coverage can have effects on—and reduce disparities in—access and affordability.^{17–20} The decline in TM without supplemental insurance suggests improved access for these populations given the potential for high cost sharing in TM without supplemental coverage. For higher-income and White beneficiaries, we found that the corresponding decline in TM occurred almost exclusively from a decline in employer-sponsored supplemental insurance.

Several factors may have driven these changes. First, the share of firms offering retiree insurance to their workers has substantially

declined²¹ and—although we did not observe insurance offerings—is likely a leading cause of the decrease in TM and ESI enrollment. Alternatively, some of the decline may be offset by the increasing use of employer-group waiver plans (EGWPs) in MA, which allow employers or unions to sponsor MA (and Part D) plans. Enrollment in these plans has grown over time, increasing from 1.8 million beneficiaries in 2010 to 5.1 million in 2022.⁷ However, in 2022, EGWP enrollment was still less than 20% of MA enrollment—or less than 10% of total Medicare Part A and Part B enrollment.⁷ This indicates that changes in offerings likely played a key role.

Second, the design of coinsurance in TM without supplemental coverage, particularly the lack of an out-of-pocket maximum, allows beneficiaries to be exposed to potentially substantial out-of-pocket costs. This exposure may have increased over time as health expenditures have grown. These design issues may push patients away from TM. Indeed, approximately 20% of MA beneficiaries report choosing MA because it has an out-of-pocket maximum.²²

Third, the MA program underwent dramatic changes during the study period. The beginning of the rapid period of MA enrollment growth coincided with the 2006 implementation of the MMA.⁷ Soon after, it became widely recognized that Medicare was overpaying MA plans relative to what it would pay for TM coverage.²³ This remains true today, even after changes to MA plan payments in the Affordable Care Act.²⁴ Some of these excess payments to MA plans are likely passed to enrollees.^{25,26} In 2022, 78% of MA beneficiaries paid no additional premiums.⁶ The subsidization of MA plans through higher payments may allow MA plans to attract beneficiaries.

Fourth, changes to prescription drug coverage policy through the implementation of Medicare Part D in 2006 may have affected how beneficiaries compare different bundles of insurance. The possibility of obtaining Part D through the same plan could be a critical factor making MA more attractive to beneficiaries who might otherwise pair TM with both supplemental coverage and a stand-alone Part D plan. On the other hand, the possibility that employer-sponsored supplemental insurance may also include prescription drug coverage may make

TABLE. Changes in Supplemental Insurance Coverage Among Medicare Beneficiaries, 2005-2019^a

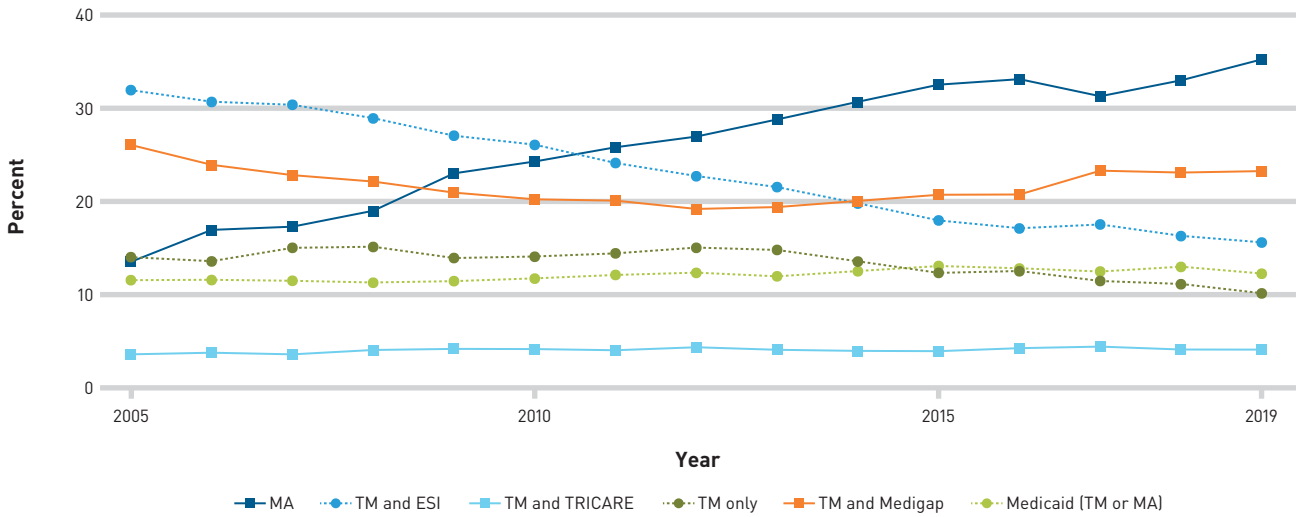
Group	Insurance	2005	2019	Percentage-point difference ^b	Percent difference ^b	P
Overall	MA	13.4	35.1	21.7	162.3	<.001
	TM only	13.9	10.1	-3.8	-27.3	<.001
	TM and ESI	31.8	15.5	-16.3	-51.3	<.001
	TM and Medigap	25.9	23.2	-2.7	-10.6	.002
	TM and TRICARE	3.5	4.0	0.6	15.9	.14
	Medicaid (TM or MA)	11.5	12.1	0.6	5.3	.268
Lower income	MA	14.1	34.9	20.9	148.5	<.001
	TM only	17.5	12.6	-4.9	-28.0	<.001
	TM and ESI	21.2	7.3	-13.9	-65.7	<.001
	TM and Medigap	24.8	18.0	-6.8	-27.5	<.001
	TM and TRICARE	1.7	2.3	0.6	33.0	.108
	Medicaid (TM or MA)	20.7	24.9	4.2	20.5	<.001
Higher income	MA	13.3	35.2	21.9	164.1	<.001
	TM only	7.8	7.8	<0.1	-0.2	.979
	TM and ESI	45.2	23.1	-22.2	-49.0	<.001
	TM and Medigap	27.6	27.9	0.3	1.1	.803
	TM and TRICARE	5.5	5.6	<0.1	0.9	.94
	Medicaid (TM or MA)	0.5	0.4	-0.1	-13.8	.573
White	MA	12.6	34.8	22.3	177.5	<.001
	TM only	12.6	9.8	-2.7	-21.7	<.001
	TM and ESI	34.5	17.0	-17.4	-50.6	<.001
	TM and Medigap	29.1	27.3	-1.8	-6.3	.063
	TM and TRICARE	3.6	4.1	0.5	14.8	.171
	Medicaid (TM or MA)	7.7	6.9	-0.8	-10.6	.066
Black	MA	14.0	37.7	23.6	168.3	<.001
	TM only	21.9	12.6	-9.3	-42.5	<.001
	TM and ESI	23.3	10.3	-13.0	-55.6	<.001
	TM and Medigap	10.1	6.0	-4.1	-40.9	.007
	TM and TRICARE	2.3	2.8	0.6	24.6	.513
	Medicaid (TM or MA)	28.3	30.6	2.2	7.9	.385
Hispanic	MA	24.0	36.0	12.0	50.0	<.001
	TM only	19.3	9.3	-9.9	-51.6	<.001
	TM and ESI	15.9	8.5	-7.3	-46.2	<.001
	TM and Medigap	12.3	6.6	-5.7	-46.2	.002
	TM and TRICARE	1.5	2.5	1.0	65.8	.291
	Medicaid (TM or MA)	27.0	37.0	9.9	36.8	<.001
Other	MA	11.0	33.2	22.2	202.1	<.001
	TM only	15.8	10.5	-5.3	-33.6	.031
	TM and ESI	22.4	12.7	-9.7	-43.1	<.001
	TM and Medigap	15.5	17.9	2.4	15.5	.355
	TM and TRICARE	5.9	6.0	0.1	1.4	.957
	Medicaid (TM or MA)	29.4	19.6	-9.8	-33.2	.002

ESI, employer-sponsored insurance; MA, Medicare Advantage; TM, traditional Medicare.

^aIncludes all Medicare Current Beneficiary Survey participants at least 65 years old enrolled in Medicare Part A and Part B. Excludes beneficiaries who died during the survey year. Insurance status was determined using data from 1 month during the year. Observations were weighted. Those without the relevant survey weights were excluded. For TM beneficiaries, supplemental insurance was determined using the following hierarchy: ESI, Medigap, TRICARE, TM only. Beneficiaries with Medicaid coverage were classified as in Medicaid regardless of TM/MA status or enrollment in other supplemental programs. Rates for beneficiaries with insufficient income information were not shown. *P* values were obtained from bivariate ordinary least squares regression using balanced repeat replication.

^bCalculations were based on unrounded 2005 and 2019 values.

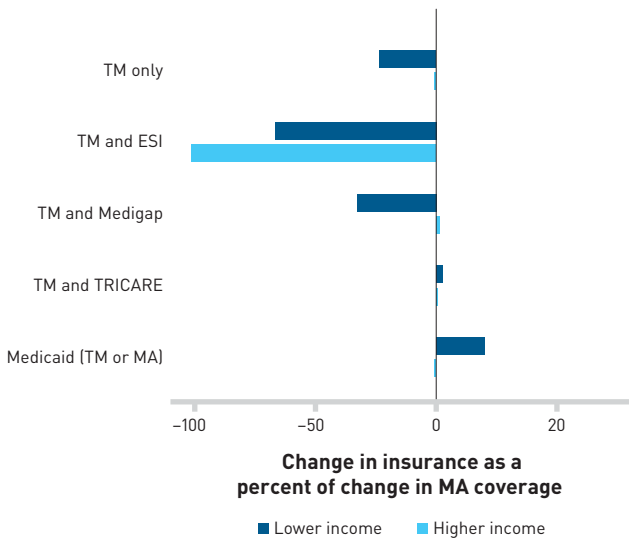
FIGURE 1. Trends in Supplemental Insurance Coverage Among Medicare Beneficiaries, 2005-2019^a



ESI, employer-sponsored insurance; MA, Medicare Advantage; TM, traditional Medicare.

^aIncludes all Medicare Current Beneficiary Survey participants at least 65 years old enrolled in Medicare Part A and Part B. Excludes beneficiaries who died during the survey year. Insurance status was determined using data from 1 month during the year. Observations were weighted. Those without the relevant survey weights were excluded. For TM beneficiaries, supplemental insurance was determined using the following hierarchy: ESI, Medigap, TRICARE, TM only. Beneficiaries with Medicaid coverage were classified as in Medicaid regardless of TM/MA status or enrollment in other supplemental programs.

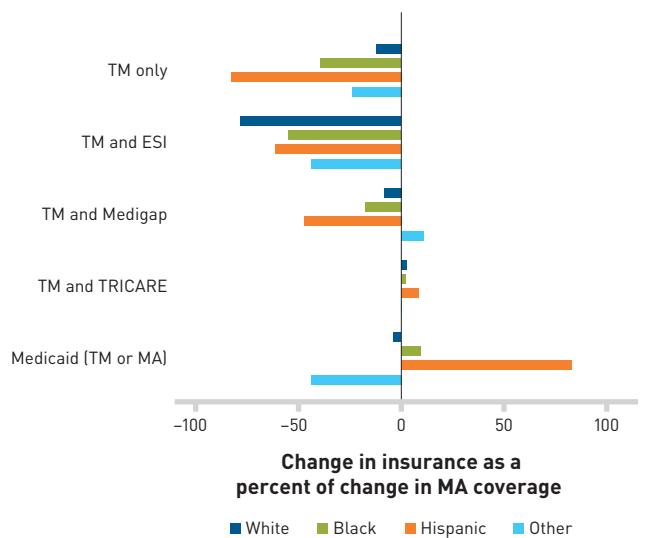
FIGURE 2. Changes in TM Supplemental Insurance Coverage Relative to Changes in MA Coverage by Income, 2005 to 2019^a



ESI, employer-sponsored insurance; MA, Medicare Advantage; TM, traditional Medicare.

^aIncludes all Medicare Current Beneficiary Survey participants at least 65 years old enrolled in Medicare Part A and Part B. Excludes beneficiaries who died during the survey year. Insurance status was determined using data from 1 month during the year. Observations were weighted. Those without the relevant survey weights were excluded. For TM beneficiaries, supplemental insurance was determined using the following hierarchy: ESI, Medigap, TRICARE, TM only. Beneficiaries with Medicaid coverage were classified as in Medicaid regardless of TM/MA status or enrollment in other supplemental programs. Rates for beneficiaries with insufficient income information were not shown.

FIGURE 3. Changes in TM Supplemental Insurance Coverage Relative to Changes in MA Coverage by Race/Ethnicity, 2005 to 2019^a



ESI, employer-sponsored insurance; MA, Medicare Advantage; TM, traditional Medicare.

^aIncludes all Medicare Current Beneficiary Survey participants at least 65 years old enrolled in Medicare Part A and Part B. Excludes beneficiaries who died during the survey year. Insurance status was determined using data from 1 month during the year. Observations were weighted. Those without the relevant survey weights were excluded. For TM beneficiaries, supplemental insurance was determined using the following hierarchy: ESI, Medigap, TRICARE, TM only. Beneficiaries with Medicaid coverage were classified as in Medicaid regardless of TM/MA status or enrollment in other supplemental programs.

that option attractive to beneficiaries—although the option has likely become available to fewer beneficiaries because fewer employers offer retiree coverage.²¹

Finally, the alternative to TM without supplemental coverage or to MA for those without Medicaid, ESI, or TRICARE is Medigap. However, this type of plan may not always be attractive to beneficiaries. Unlike MA plans, Medigap policies often have costly premiums.⁹ In addition, the lack of national guaranteed-issue and community-rating regulations may make purchasing Medigap impossible or unaffordable for some beneficiaries in many states.²⁷ Indeed, we show that the use of Medigap decreased modestly during our study period. The benefit design of TM, changes in firms' retiree insurance offerings, affordability issues with Medigap, and the generosity of MA plans may have all contributed to the rise of MA enrollment in recent decades.

Limitations

This study has limitations. First, the insurance coverage variable was dependent on survey responses, which may contain errors.²⁸ Second, our measure of income was imprecise; however, it provides useful information on the development of Medicare beneficiary insurance over time. Third, because we used survey data and the number of beneficiaries was therefore relatively small, we classified Asian, American Indian/Alaska Native, and Native Hawaiian or Pacific Islander beneficiaries as "other race/ethnicity." We were unable to detail changes in insurance across these race/ethnicity groups because of small sample sizes.

CONCLUSIONS

From 2005 to 2019, the increase in MA enrollment was accompanied by declines in the use of TM with employer-sponsored supplemental coverage, TM without any supplemental coverage, and TM with Medigap. The declines in TM without supplemental coverage were largest for lower-income, Black, and Hispanic beneficiaries, which is particularly important because of potentially high cost sharing in TM without supplemental coverage. The shift from high rates of TM with employer-sponsored supplemental coverage to high rates of MA enrollment emphasizes the changing role of private insurers in Medicare. ■

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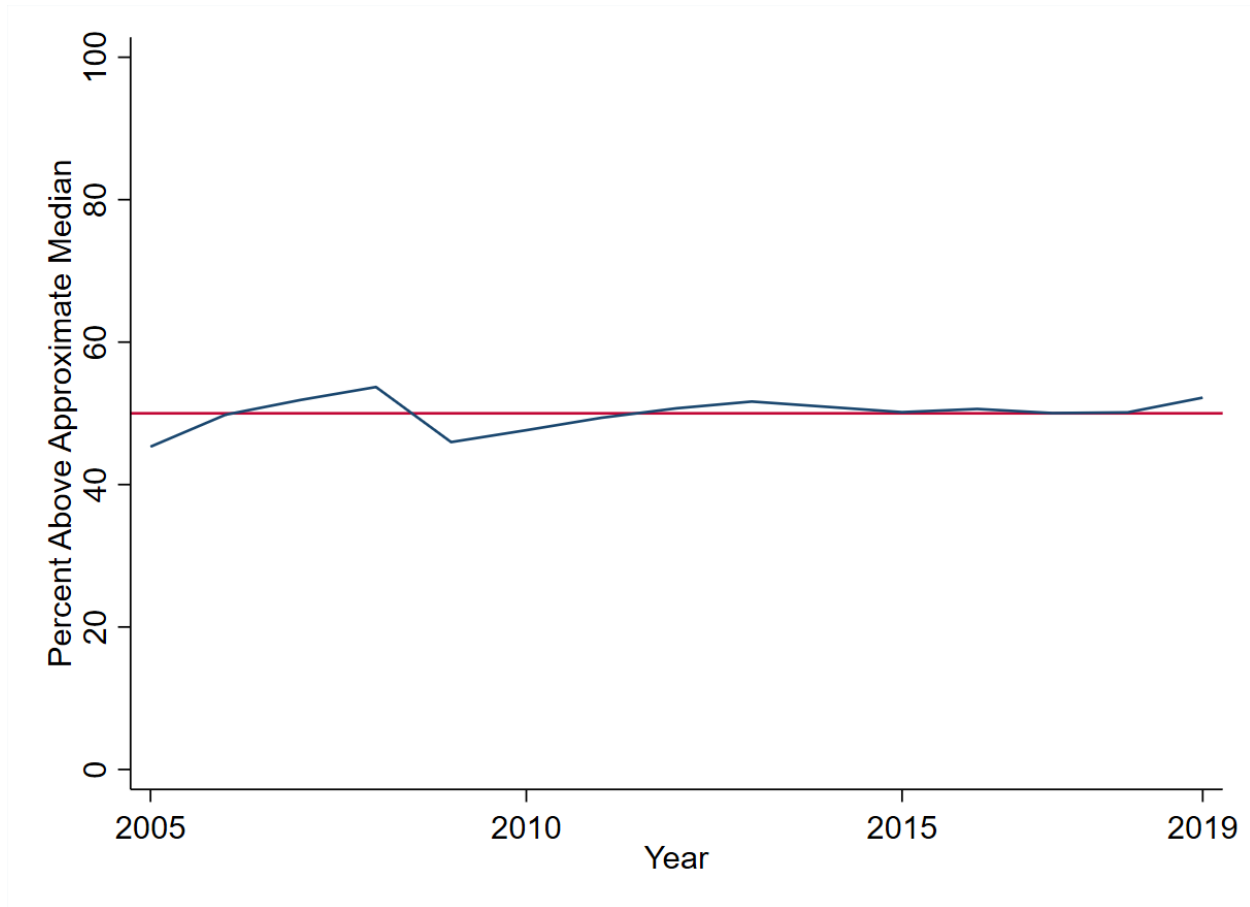
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REFERENCES

1. An overview of Medicare. KFF. February 13, 2019. Accessed June 20, 2023. <https://files.kff.org/attachment/issue-brief-an-overview-of-medicare>
2. Johnston EM, Kenney G, Gonzalez D. Many people with employer-sponsored insurance would face high out-of-pocket costs for COVID-19 treatment. Urban Institute. March 23, 2020. Accessed June 20, 2023. <https://www.urban.org/urban-wire/many-people-employer-sponsored-insurance-would-face-high-out-pocket-costs-covid-19-treatment>
3. National health expenditure data. CMS. Updated September 6, 2023. Accessed June 20, 2023. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData>
4. Tarazi W, Welch P, Nguyen N, et al. Medicare beneficiary enrollment trends and demographic characteristics. Office of the Assistant Secretary for Planning and Evaluation issue brief No. HP-2022-08. March 2, 2022. Accessed June 20, 2023. <https://aspe.hhs.gov/sites/default/files/documents/fb1aafba0b331c71c6e8bc66512e25d/medicare-beneficiary-enrollment-ib.pdf>
5. Biniek JF, Ochieng N, Cubanski J, Neuman T. Cost-related problems are less common among beneficiaries in traditional Medicare than in Medicare Advantage, mainly due to supplemental coverage. KFF. June 25, 2021. Accessed June 20, 2023. <https://www.kff.org/medicare/issue-brief/cost-related-problems-are-less-common-among-beneficiaries-in-traditional-medicare-than-in-medicare-advantage-mainly-due-to-supplemental-coverage/>
6. Freed M, Biniek JF, Damico A, Neuman T. Medicare Advantage in 2022: premiums, out-of-pocket limits, cost sharing, supplemental benefits, prior authorization, and star ratings. KFF. August 9, 2023. Accessed June 20, 2023. <https://web.archive.org/web/20221230155208/https://www.kff.org/medicare/issue-brief/medicare-advantage-in-2022-premiums-out-of-pocket-limits-cost-sharing-supplemental-benefits-prior-authorization-and-star-ratings/>
7. Freed M, Biniek JF, Damico A, Neuman T. Medicare Advantage in 2022: enrollment update and key trends. KFF. August 25, 2022. Accessed June 20, 2023. <https://web.archive.org/web/20230621024114/https://www.kff.org/medicare/issue-brief/medicare-advantage-in-2022-enrollment-update-and-key-trends/>
8. Davis K, Willink A, Schoen C. How the erosion of employer-sponsored insurance is contributing to Medicare beneficiaries' financial burden. The Commonwealth Fund. July 25, 2019. Accessed June 20, 2023. <https://www.commonwealthfund.org/publications/issue-briefs/2019/jul/erosion-employer-sponsored-insurance-medicare-financial-burden>
9. Trends in Medigap enrollment, 2010 to 2015. Medicare Payment Advisory Commission. February 13, 2017. Accessed June 20, 2023. <https://www.medpac.gov/trends-in-medigap-enrollment-2010-to-2015/>
10. Neuman T, Damico A. Fading fast: fewer seniors have retiree health insurance. KFF. May 5, 2016. Accessed June 20, 2023. <https://www.kff.org/medicare/issue-brief/fading-fast-fewer-seniors-have-retiree-health-insurance/>
11. Meyers DJ, Mor V, Rahman M, Trivedi AN. Growth in Medicare Advantage greatest among Black and Hispanic enrollees. *Health Aff (Millwood)*. 2021;40(6):945-950. doi:10.1377/hlthaff.2021.00118
12. Park S, Meyers DJ, Rivera-Hernandez M. Enrollment in supplemental insurance coverage among Medicare beneficiaries by race/ethnicity. *J Racial Ethn Health Disparities*. 2022;9(5):2001-2010. doi:10.1007/s40615-021-01138-w
13. CMS. 2015 MCBS Methodology Report. CMS; 2015. Accessed June 20, 2023. <https://www.cms.gov/research-statistics-data-and-systems/research/mcbs/downloads/mcbs2015methodreport508.pdf>
14. Boccuti C, Jacobson G, Orgera K, Neuman T. Medigap enrollment and consumer protections vary across states. KFF. July 11, 2018. Accessed June 20, 2023. <https://www.kff.org/medicare/issue-brief/medigap-enrollment-and-consumer-protections-vary-across-states/>
15. Medicare-Medicaid dual enrollment 2006 through 2019. CMS Medicare-Medicaid Coordination Office. November 2020. Accessed June 20, 2023. <https://www.cms.gov/files/document/medicaremedicaidualenrollmenttrendsdatabrief.pdf>
16. Jarrin OF, Nyandege AN, Grafova IB, Dong X, Lin H. Validity of race and ethnicity codes in Medicare administrative data compared with gold-standard self-reported race collected during routine home health care visits. *Med Care*. 2020;58(1):e1-e8. doi:10.1097/MLR.0000000000001216
17. Lillie-Blanton M, Hoffman C. The role of health insurance coverage in reducing racial/ethnic disparities in health care. *Health Aff (Millwood)*. 2005;24(2):398-408. doi:10.1377/hlthaff.24.2.398
18. Currie J, Decker S, Lin W. Has public health insurance for older children reduced disparities in access to care and health outcomes? *J Health Econ*. 2008;27(6):1567-1581. doi:10.1016/j.jhealeco.2008.07.002
19. Buchmueller TC, Levy HG. The ACA's impact on racial and ethnic disparities in health insurance coverage and access to care. *Health Aff (Millwood)*. 2020;39(3):395-402. doi:10.1377/hlthaff.2019.01394
20. Wallace J, Jiang K, Goldsmith-Pinkham P, Song Z. Changes in racial and ethnic disparities in access to care and health among US adults at age 65 years. *JAMA Intern Med*. 2021;181(9):1207-1215. doi:10.1001/jamainternmed.2021.3922
21. Section 11: retiree health benefits. In: *2018 Employer Health Benefits Survey*. KFF. October 3, 2018. Accessed June 20, 2023. <https://www.kff.org/report-section/2018-employer-health-benefits-survey-section-11-retiree-health-benefits/>
22. Leonard F, Jacobson G, Haynes LA, Collins SR. Traditional Medicare or Medicare Advantage: how older Americans choose and why. The Commonwealth Fund. October 17, 2022. Accessed June 20, 2023. <https://www.commonwealthfund.org/publications/issue-briefs/2022/oct/traditional-medicare-or-advantage-how-older-americans-choose>
23. Chapter 4: update on Medicare private plans. In: *Report to the Congress: Medicare Payment Policy*. Medicare Payment Advisory Commission; March 2007:239-265. Accessed June 20, 2023. https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/march-2007-report-chapter-4-update-on-medicare-private-plans.pdf
24. Neuman P, Jacobson GA. Medicare Advantage checkup. *N Engl J Med*. 2018;379(22):2163-2172. doi:10.1056/NEJMp1804089
25. Nicholas LH, Wu S. Do Medicare Advantage rebates reduce enrollees' out-of-pocket spending? *Med Care Res Rev*. 2020;77(5):474-482. doi:10.1177/1077558718807847
26. Cabral M, Geruso M, Mahoney N. Do larger health insurance subsidies benefit patients or producers? evidence from Medicare Advantage. *Am Econ Rev*. 2018;108(8):2048-2087.
27. Meyers DJ, Trivedi AN, Mor V. Limited Medigap consumer protections are associated with higher reenrollment in Medicare Advantage plans. *Health Aff (Millwood)*. 2019;38(5):782-787. doi:10.1377/hlthaff.2018.05428
28. Mellor JM, McInerney M, Sabik LM. Misclassification of Medicaid participation by dual eligibles: evidence from the Medicare Current Beneficiary Survey. *Med Care Res Rev*. 2021;78(2):113-124. doi:10.1177/1077558719858839

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eAppendix Figure. Percent of Beneficiaries With Above Approximate Median Income, 2005-2019^a



^aObservations are weighted using survey weights. Those with insufficient income data were excluded. After 2014, when continuous income data is available, we classify those at or above the exact median as above median. Before 2014, when income was recorded as a categorical variable, we classify beneficiaries by whether they are at or above the approximate median, which was determined by the distribution of the categorical income variable in that year.

eAppendix Table. Sample Characteristics^a

Characteristic	N	Weighted N	Percent
Total	162,625	522,322,183	100.0
Race/Ethnicity			
White	128,915	411,660,292	78.8
Black	12,953	41,743,135	8.0
Hispanic	13,135	40,474,806	7.7
Other	7622	28,443,950	5.4
Income			
Lower income	79,669	239,856,361	45.9
Higher income	68,310	240,523,058	46.0
Insufficient income data	14,646	41,942,764	8.0
Age (years)			
65-74	62,747	268,433,567	51.4
75-84	65,815	179,390,554	34.3
85+	34,063	74,498,062	14.3
Sex			
Male	68,760	223,017,867	42.7
Female	93,865	299,304,316	57.3
Education			
Less than high school	37,293	104,699,194	20.0
High school or vocational school	57,302	181,032,854	34.7
Any college	64,549	229,984,515	44.0
Unknown	3481	6,605,620	1.3
Census Region			
Northeast	28,722	98,327,837	18.8
Midwest	39,296	119,364,629	22.9
South	62,088	192,347,067	36.8
West	30,532	107,656,610	20.6
Puerto Rico	1987	4,626,040	0.9

^aObservations are beneficiary years.