

Targeting Veterans: Medicare Advantage Plans Can Leverage Diagnosis-Capture Tools to Increase Payments

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Introduction

Under current federal payment policies, strong incentives exist for Medicare Advantage (MA) health plans to document as many diagnoses as possible to increase beneficiary risk scores that generate higher payments. MA plans commonly use two tools to identify diagnoses beyond those reported in claims and encounter data: health risk assessments (HRAs) and retrospective chart reviews.^{1,2,3} HRAs collect information about an enrollee's health conditions and care needs, while chart reviews examine medical records for diagnoses that may not appear in claims. Because these tools can add diagnoses without a corresponding clinical encounter or increase in service use, they can potentially increase plan payments without any benefit to MA enrollees. Between 35 percent and 46 percent of the incremental risk scores generated through HRAs and chart reviews is not explained by greater resource use, and chart reviews alone were associated with billions of dollars in additional annual payments to MA plans.¹

In-home HRAs, which are initiated by MA plans, have received scrutiny because diagnoses recorded during these assessments can increase risk-adjusted payments without evidence of follow-up care or corroboration in a subsequent clinical encounter.^{4,5} Similarly, unlinked chart reviews, defined as a review that adds diagnoses without a clinical encounter, also have drawn scrutiny because they limit the ability of the Centers for Medicare & Medicaid Services (CMS) to verify that the additional diagnoses reflect actual conditions evaluated or treated by a clinician.

Use of diagnosis-capture tools like in-home HRAs and chart reviews may be especially consequential for veterans eligible to receive care through the U.S. Department of Veterans Affairs (VA) while also enrolled in an MA plan. Veterans are a popular marketing focus for large MA organizations, with many



KEY FINDINGS

- Overall, veterans enrolled in MA had lower rates of HRAs and chart reviews than non-veterans.
- However, veterans in veteran-targeted plans were more likely to receive in-home HRAs than both non-veterans in those plans and veterans in other MA plan types; this pattern persisted after adjustment for beneficiary and other characteristics.
- Veteran-targeted plans had substantially lower chart review rates than other MA plan types, suggesting that these plans may rely more on in-home HRAs to capture additional diagnoses among veterans.

offering plans with words like “valor,” “patriot,” and “honor” in their plan names.^{6,7} By 2024, more than 1 million veterans—or about 1 in 4 veterans eligible for Medicare—were enrolled in MA plans and also eligible for VA health benefits.^{8,9} Coupled with aggressive marketing to veterans, the rapid growth of MA plans with high levels of veteran enrollment raises concerns about potential duplicative and wasteful federal spending because MA plans receive full payment even when veterans get care through the VA.^{10,11}

Federal law prohibits the VA from billing Medicare or MA plans for VA-financed care.¹² At the same time, MA plans continue to receive full per-beneficiary, per-month—or capitated—payments when the VA provides an enrollee’s care, creating the potential for duplicative federal spending for veterans in MA plans. In 2020 alone, CMS paid more than \$1.3 billion to MA plans for veterans who incurred no corresponding Medicare-covered services, with a growing share of that spending concentrated in plans with high veteran enrollment.¹³ Therefore, MA organizations may leverage in-home HRAs and unlinked chart reviews to supplement veterans’ claims-based risk scores and increase plan payments without plans’ incurring additional costs to care for veterans. Although enrollment in plans serving large numbers of veterans has grown rapidly, studies have not examined whether plans use diagnosis-capture tools differently for veterans.

Veteran-targeted plans may enable MA organizations to enroll veterans and systematically capture diagnoses that increase risk-adjusted payments. These plans are designed and marketed to veterans and, while required to cover all Medicare Part A and B benefits, typically emphasize supplemental benefits such as Part B premium rebates and dental, vision, and hearing coverage. However, most veteran-targeted plans do not include Part D drug coverage, and this reflects the fact that beneficiaries with VA coverage can obtain prescriptions, as well as other care, through the VA. Because VA-financed services do not generate MA claims, plans may have less encounter-based information available to document veterans’ conditions. MA plans can use in-home HRAs and unlinked chart reviews—from non-VA providers through the MA plan or VA-authorized community care providers—to fill this gap by identifying diagnoses outside MA-covered clinical encounters, increasing risk scores and payments even when the VA provides or finances treatment for these conditions.

This study examined whether MA plans disproportionately use in-home HRAs and unlinked chart reviews for veterans and whether veterans enrolled in veteran-targeted plans experience these diagnosis-capture activities more often than veterans in other MA plans. Using the Medicare Current Beneficiary Survey linked with the Master Beneficiary Summary File and Medicare claims and encounter data from 2017 through 2023, AIR researchers compared annual rates of HRAs and unlinked chart reviews of veteran with non-veteran MA enrollees. Analyses were conducted separately for three mutually exclusive plan types—veteran-targeted plans, Special Needs Plans (SNPs), and other non-SNP MA plans—to assess whether veteran targeting is associated with greater use of diagnosis-capture tools (see “Study Data and Methods,” on page 6). The findings provide new evidence on the ways MA

payment incentives may shape MA plan diagnosis-capture practices for veterans and can inform CMS oversight of risk adjustment, veteran-targeted-plan marketing, and program integrity.

Veterans Overall Have Lower Rates of In-Home HRAs and Unlinked Chart Reviews

Exhibit 1 presents survey-weighted annual rates of HRAs and unlinked chart reviews among MA enrollee-years, overall and by plan type and veteran status. Approximately 26% of the study sample received in-home HRAs, and 38.1% had unlinked chart reviews. Relative to non-veterans, veterans were less likely to receive in-home HRAs (22.1% vs. 26.8%) and unlinked chart reviews (35.4% vs. 38.5%). Rates of in-home HRAs and unlinked chart reviews were higher in SNPs than in non-SNP MA plans and veteran-targeted plans across both measures. In-home HRA rates were highest among SNP enrollees (37.9%), followed by veteran-targeted plans (33.8%) and other non-SNP MA plans (22.9%). Veteran-targeted plans had the lowest rate of unlinked chart reviews (22.7%), compared with 37.0% in non-SNP MA plans and 42.6% in SNPs. SNPs are required to conduct a comprehensive initial HRA for each enrollee and reassess enrollees annually as part of their model of care, which may contribute to the higher HRA rates in these plans.¹⁴

Exhibit 1. Annual Rates of HRAs and Chart Reviews

Sample	<i>n</i>	In-home HRA	Unlinked chart reviews
Full sample	87,888	26.2%	38.1%
Enrolled in non-SNP MA plans	63,045	22.9%	37.0%
Enrolled in MA SNPs	22,124	37.9%	42.6%
Enrolled in veteran-targeted MA plans	2,719	33.8%	22.7%
Non-veterans	76,683	26.8%	38.5%
Veterans	11,205	22.1%	35.4%

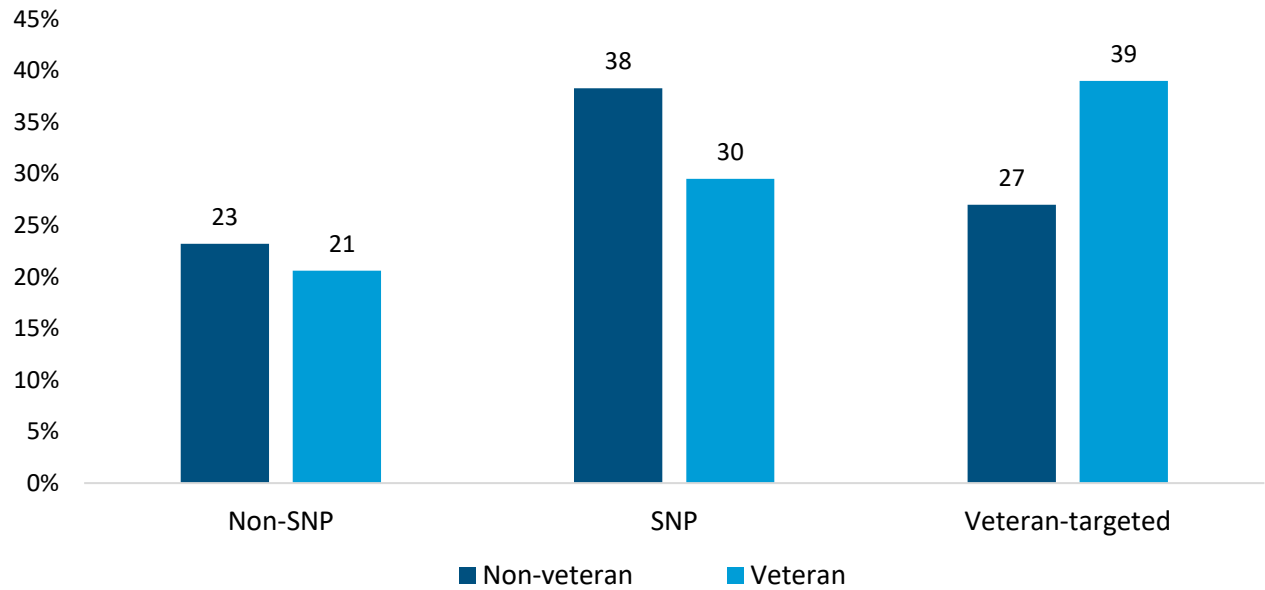
Note. HRA = health risk assessment; MA = Medicare Advantage; SNP = Special Needs Plan. Data are from the 2017–2023 Medicare Current Beneficiary Survey linked with the Master Beneficiary Summary File, MA encounter records, and CMS MA landscape files. Estimates are survey weighted and represent annual rates among MA enrollee-years. Sample counts represent person-year observations. In-home HRAs were identified in-home HRAs defined as evaluation and management home visits with procedure codes 99341–99345 or 99347–99350. Unlinked chart reviews were records with a missing original claim control number that added or replaced diagnoses.

Veterans Enrolled in Veteran-Targeted Plans More Likely to Receive an In-Home HRA Compared With Non-Veterans and Veterans Enrolled in Other MA Plan Types

Exhibit 2 shows that in-home HRA rates differed by veteran status within each plan type. Veterans enrolled in non-SNPs and SNPs had significantly lower rates of in-home HRAs than non-veterans in the same plan types. In veteran-targeted plans, veterans had a higher in-home HRA rate than non-veterans

(39% vs. 27%, $p < .05$). Veterans in veteran-targeted plans also had higher HRA rates than veterans in non-SNP (21%) and SNP (30%) MA plans. This pattern suggests that greater use of in-home HRAs among veterans may be concentrated in veteran-targeted plans.

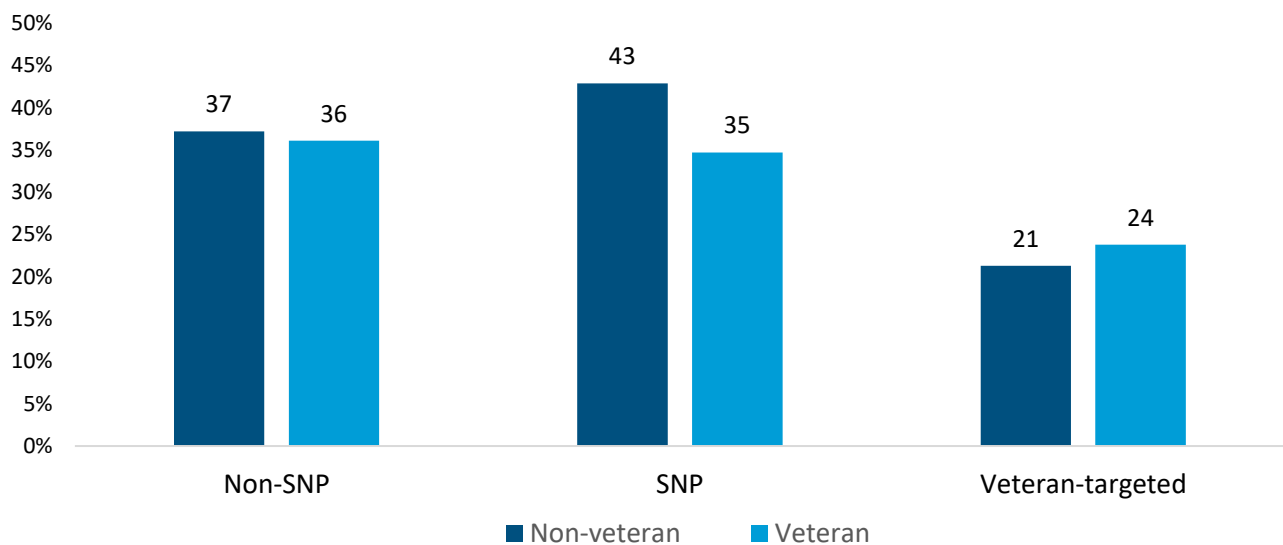
Exhibit 2. Rates of In-Home HRAs Across MA Plan Types, by Veteran Status



Note. HRA = health risk assessment; MA = Medicare Advantage; SNP = Special Needs Plan. Data are from the 2017–2023 Medicare Current Beneficiary Survey linked with the Master Beneficiary Summary File, MA encounter records, and CMS MA landscape files. Estimates are survey weighted and represent annual rates among MA enrollee-years.

Exhibit 3 shows that veterans had lower rates of unlinked chart reviews than non-veterans across non-SNP and SNP MA plans, although the differences were not statistically significant in non-SNPs ($p = .38$) or SNPs ($p = .09$). Chart review rates were slightly higher for veterans than for non-veterans in veteran-targeted plans, but the difference was not statistically significant ($p = .70$). For both veterans and non-veterans, chart review rates in veteran-targeted plans were substantially lower than rates in non-SNPs and SNPs. Overall, these findings suggest that MA plans—particularly veteran-targeted plans—may not rely heavily on chart reviews to identify diagnoses for veterans. One possible explanation is that Medicare encounter data do not routinely capture diagnoses or utilization associated with VA-financed care, leaving MA organizations with limited opportunities to conduct unlinked chart reviews using records from VA-authorized community care providers or other MA providers that treat veterans.

Exhibit 3. Rates of Unlinked Chart Reviews Across Plan Types, by Veteran Status



Note. SNP = Special Needs Plan; MA = Medicare Advantage. Data are from the 2017–2023 Medicare Current Beneficiary Survey linked with the Master Beneficiary Summary File, MA encounter records, and CMS MA landscape files. Estimates are survey weighted and represent annual rates among MA enrollee-years. Unlinked chart reviews are records with a missing original claim control number that added or replaced diagnoses.

MA Organizations May Be Leveraging In-Home HRAs in Veteran-Targeted Plans to Capture More Diagnoses Among Veterans

Exhibit 4 presents adjusted odds ratios (ORs) from survey-weighted logistic regressions comparing veterans with non-veterans within each MA plan type. Veterans in non-SNPs had 16% lower odds of receiving an in-home HRA than non-veterans (OR = 0.84; 95% confidence interval [CI], 0.76–0.92), and veterans in SNPs had 50% lower odds (OR = 0.50; 95% CI, 0.38–0.65). In contrast, veterans in veteran-targeted plans were 3.76 times the odds of receiving an in-home HRA compared with non-veterans in those plans (95% CI, 1.08–8.39). Although statistically significant, the wide confidence interval indicates a lack of precision in the exact effect size. Differences in unlinked chart reviews were not statistically significant within any plan type. The adjusted estimates were consistent with the unadjusted findings, reinforcing that the higher use of in-home HRAs among veterans was concentrated in veteran-targeted plans rather than observed across MA plan types.

Exhibit 4. Odds of Receiving an In-Home HRA and Unlinked Chart Review: Veterans vs. Non-Veterans, by MA Plan Type

Plan type	Odds ratio	
	In-home HRA	Unlinked chart review
Non-SNP	0.84 (0.76–0.92) *	1.04 (0.96–1.13)
SNP	0.50 (0.38–0.65) *	0.79 (0.62–1.02)
Veteran-targeted	3.76 (1.08–8.39) *	1.91 (0.73–5.02)

Note. HRA = health risk assessment; MA = Medicare Advantage; OR = odds ratio; SNP = Special Needs Plan. Data are from the 2017–2023 Medicare Current Beneficiary Survey linked with the Master Beneficiary Summary File, MA encounter records, and CMS MA landscape files. Estimates are from survey-weighted logistic regression models that account for the Medicare Current Beneficiary Survey complex sampling design and adjust for age, marital status, sex, race categories, parent organization, and health status. ORs compare veterans with non-veterans within each plan type; non-veterans are the reference group. Values in parentheses are 95% confidence intervals.

* $p < .05$.

Policy Implications

The study findings show that veterans enrolled in veteran-targeted plans were substantially more likely to receive in-home HRAs, even after adjustment for beneficiary and other characteristics. Veteran-targeted plans are designed and marketed to attract veterans, making these plans a particularly relevant vehicle for MA organizations to focus diagnosis-capture activities on veterans. Because documented diagnoses increase risk scores—and higher risk scores increase risk-adjusted payments—MA organizations have strong incentives to use in-home HRAs in veteran-targeted plans to identify additional conditions. These incentives may be especially pronounced because veterans often continue to receive medical care through the VA, and MA plans can receive higher payments based on the additional captured diagnoses without incurring higher expenditures for veterans with VA coverage.

In earlier work, AIR researchers found that the VA/Department of Defense adjustment in MA benchmark calculations may increase payments to MA plans in counties with a high share of veterans, making veteran targeting more financially attractive and contributing to greater availability of veteran-targeted plans.¹⁵ The findings from this study identify a complementary mechanism for veteran-targeted MA plans to increase payments without a corresponding increase in MA plan expenditures: using in-home HRAs to capture diagnoses that raise veterans’ risk scores and risk-adjusted payments, even when treatment for these conditions is paid for by the VA. Together, the evidence indicates that MA payment policy can influence both where MA organizations market veteran-focused plans and how these plans engage beneficiaries after enrollment. CMS could therefore consider whether oversight of veteran-targeted plan marketing and benefit design should be paired with closer review of diagnoses added through in-home HRAs, including whether identified conditions lead to appropriate follow-up

care and care coordination with the VA. The findings are also informative for Congressional consideration of MA payment policies, including whether the VA should be able to recoup costs from MA plans and revising capitation rates paid to MA plans for veterans.

STUDY DATA AND METHODS

Data. Researchers used the 2017–2023 Medicare Current Beneficiary Survey linked with the Master Beneficiary Summary File and MA encounter records to create a person-year sample of MA enrollees. CMS MA landscape files for 2017–2023 were linked with the data set to identify type of MA plan.

Study sample and measures. Researchers created a person-year sample of MA enrollees, using the 2017–2023 Medicare Current Beneficiary Survey linked with the Master Beneficiary Summary File and Medicare claims and encounter data. The analytic sample included 87,888 person years, including 11,205 veteran and 76,683 non-veteran person years. Veterans were identified using the question “Did [you/the sampled person] ever serve in the Armed Forces of the United States?” Researchers excluded beneficiaries without full-year MA enrollment and with missing veteran status. The sample was restricted to enrollees in health maintenance organization (HMO), HMO point-of-service, local preferred provider organization (PPO), and regional PPO plans. Outcomes measured whether an enrollee had an in-home HRA or an unlinked chart review during the year. HRAs were identified in carrier and outpatient encounter records, using procedure codes for annual wellness visits (G0438 or G0439), initial preventive physical exams (G0402), or in-home HRAs defined as evaluation and management home visits (99341–99345 or 99347–99350). Unlinked chart reviews were defined as chart review records with a missing original claim control number that added or replaced diagnoses on the basis of claim frequency Code 1 or 7.

Plan classification. Researchers classified enrollees into three mutually exclusive plan groups: SNPs, veteran-targeted plans, and other non-SNP MA plans. Veteran-targeted health plans were identified with the method used by Dorneo et al.,⁷ based on presence of any of the 10 keywords in the MA plan name—valor, patriot, honor, courage, eagle, freedom, liberty, salute, valiance, and veteran. Researchers used publicly available information, including websites and marketing materials, to validate classification for specific types of plans. For example, since veteran-targeted plans are unlikely to offer prescription drug benefits, researchers validated plan classification by verifying the websites of MA plans that offered a Part D drug benefit. In addition, Dual Eligible Special Needs Plans, which enroll beneficiaries dually eligible for Medicare and Medicaid, were excluded from the classification of veteran-targeted MA plans. SNP status and parent MA organization were obtained from CMS MA landscape files for 2017–2023 and merged by year, using contract ID and plan ID. Within our sample, 77% of veterans were enrolled in non-SNP MA plans, 14% in SNPs, and 9% in veteran-targeted plans.

Analysis. Researchers calculated survey-weighted annual rates of each diagnosis-capture activity for the full sample and by veteran status and plan type. Within each plan type chi-square tests

compared rates between veterans and non-veterans while accounting for the Medicare Current Beneficiary Survey's complex sampling design. Researchers then estimated separate survey-weighted logistic regression models for each plan type and outcome—receipt of an in-home HRA and receipt of an unlinked chart review. Each model included veteran status and adjusted for age, marital status, sex, race, parent MA organization, and health status. Reported estimates are adjusted odds ratios and 95% confidence intervals comparing veterans with non-veterans within each plan type. All analyses incorporated survey weights and accounted for the complex sampling design. Analyses were conducted using SAS, and two-sided *p* values below .05 were considered statistically significant.

Limitations. The analysis is observational and identifies associations rather than causal effects of veteran-targeted plan enrollment. Veteran status, plan classification, and diagnosis-capture activities may be misclassified because of limitations in survey responses, plan-name algorithms, or encounter-data reporting. Finally, our estimate of the association between veteran status and in-home HRA receipt among veteran-targeted plan enrollees suffers from limited precision indicated by wide confidence interval. Future research with larger, targeted samples is needed to provide a more precise estimate.

Acknowledgment

This work was supported by Arnold Ventures.

References

- ¹ Jung, J., Feldman, R., & Carlin, C. (2023). Coding intensity through health risk assessments and chart reviews in Medicare Advantage: Does it explain resource use? *Medical Care Research and Review*, 80(6), 641–647.
- ² Jacobs, P. D. (2024). In-home health risk assessments and chart reviews contribute to coding intensity in Medicare Advantage. *Health Affairs*, 43(7), 942–949.
- ³ Meyers, D. J., & Trivedi, A. N. (2021). Medicare Advantage chart reviews are associated with billions in additional payments for some plans. *Medical Care*, 59(2), 96–100
<https://doi.org/10.1097/0.1097/MLR.0000000000001412>. Erratum (2001, July 1) in *Medical Care*, 59(7), 661. <https://doi.org/10.1097/MLR.0000000000001589>.
- ⁴ U.S. Department of Health and Human Services, Office of Inspector General. (2024, October). *Medicare Advantage: Questionable use of health risk assessments continues to drive up payments to plans by billions*. OEI-03-23-00380.
<https://oig.hhs.gov/documents/evaluation/10028/OEI-03-23-00380.pdf>
- ⁵ U.S. Department of Health and Human Services, Office of Inspector General. (2020, September). *Billions in estimated Medicare Advantage payments from diagnoses reported only on health risk assessments raise concerns*. OEI-03-17-00471.
<https://oig.hhs.gov/documents/evaluation/2793/OEI-03-17-00471-Complete%20Report.pdf>
- ⁶ AARP Medicare Plans. (cited 2024). *Medicare Advantage plans with veterans in mind* [internet]. UnitedHealthcare <https://www.aarpmedicareplans.com/shop/medicare-advantage-veteran-plan.html>
- ⁷ Dorneo, A., Ma, Y., Garrido, M. M., Pizer, S. D., Shafer, P. R., Tsai, T. C., Frakt, A. B., & Figueroa, J. F. (2025, March 7). Characteristics and benefit design of veteran Medicare Advantage “affinity plans.” *JAMA Health Forum*, 6(3), e250159.
<https://doi.org/10.1001/jamahealthforum.2025.0159>
- ⁸ Ma, Y., Phelan, J., Jeong, K. Y., Tsai, T. C., Frakt, A. B., Pizer, S. D., Garrido, M. M., Dorneo, A., & Figueroa, J. F. (2024). Medicare Advantage plans with high numbers of veterans: Enrollment, utilization, and potential wasteful spending. *Health Affairs*, 43(11), 1508–1517.
<https://doi.org/10.1377/hlthaff.2024.00302>

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- ⁹ U.S. Department of Veterans Affairs, Veterans Health Administration. (2026). *CSO Strategy Survey (SOE24)*. https://department.va.gov/vha/wp-content/uploads/sites/65/2026/05/CSO-Strategy-Survey_SOE24.pdf
- ¹⁰ Government Accountability Office. (2016, April 11). *Medicare Advantage: Action needed to ensure appropriate payments for veterans and nonveterans* (Report No. GAO-16-137). <https://www.gao.gov/assets/gao-16-137.pdf>
- ¹¹ Dayoub, E. J., Medvedeva, E. L., Khatana, S. A. M., Nathan, A. S., Epstein, A. J., & Groeneveld, P. W. (2020). Federal payments for coronary revascularization procedures among dual enrollees in Medicare Advantage and the Veterans Affairs health care system. *JAMA Network Open*, 3(4), e201451.
- ¹² Trivedi, A. N., Grebla, R. C., Jiang, L., Yoon, J., Mor, V., & Kizer, K. W. (2012). Duplicate federal Payments for dual enrollees in Medicare Advantage plans and the Veterans Affairs health care system. *JAMA*, 308(1), 67–72.
- ¹³ Ma, Y., Phelan, J., Jeong, K. Y., Tsai, T. C., Frakt, A. B., Pizer, S. D., Garrido, M. M., Dorneo, A., & Figueroa, J. F. (2024). Medicare Advantage plans with high numbers of veterans: Enrollment, utilization, and potential wasteful spending. *Health Affairs*, 43(11), 1508–1517.
- ¹⁴ Centers for Medicare & Medicaid Services. (2024, November 22). *Medicare managed care manual, Chapter 16-B: Special needs plans*. <https://www.cms.gov/regulations-and-guidance/guidance/manuals/downloads/mc86c16b.pdf>
- ¹⁵ Pathak, A., & Joy, S. (2026). *Unintended consequences: Examining how Medicare Advantage payment policies encourage aggressive marketing to veterans and duplicative spending*. American Institutes for Research. <https://www.air.org/sites/default/files/2026-07/Unintended%20Consequences-Medicare%20Advantage-and-Veterans-Issue-Brief-July-2026.pdf>