

Risk Adjusting for Medicaid Participation in Medicare Advantage

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From 2006 to 2017, the number of Medicare Advantage (MA) members who were dually eligible for Medicare and Medicaid more than tripled from 1.0 to 3.7 million.¹ To ensure access to care in MA plans, capitated payments for dual-eligible beneficiaries should accurately reflect their expected medical spending, which varies significantly.² If capitated payments for this population are too low, then plans may seek to avoid enrolling dual-eligible beneficiaries.³ Conversely, if capitated payments are too high, then Medicare may lose money by paying more to MA plans than the costs of covering dual-eligible beneficiaries in traditional Medicare.

In 2017, CMS changed how MA payments for dual-eligible beneficiaries are risk adjusted to improve prediction accuracy. The former approach uniformly increased payment rates for all dual-eligible beneficiaries, regardless of their level of Medicaid benefits. The new approach differentiates between adjustments for beneficiaries with full vs partial Medicaid (Table 1).^{4,5} Partial Medicaid includes Medicare premium coverage and, for individuals living in poverty, Medicare cost-sharing coverage. Full Medicaid includes these benefits and additional services not covered by Medicare, such as long-term services and supports, medical transportation, and (in some states) dental benefits.⁶ Under the new risk-adjustment approach, plans receive greater capitated payment rates for full Medicaid beneficiaries than partial Medicaid beneficiaries.⁴

Because eligibility for full and partial Medicaid varies across states, distinguishing between Medicaid levels introduced new eligibility-related differences in MA payments. For example, according to federal requirements, all Medicare beneficiaries with income below 100% of the federal poverty level (FPL) and limited assets qualify for partial Medicaid benefits. However, states can elect to offer full Medicaid instead to this population. A Medicare beneficiary with an income level of 85% FPL and limited assets would qualify for full Medicaid in 19 states and the District of Columbia but would only qualify for partial Medicaid in 31 states.⁶ Under the new risk-adjustment approach, MA plans will be paid more to cover that beneficiary in the states where the beneficiary qualifies for full rather than partial Medicaid.

ABSTRACT

OBJECTIVES: Determining appropriate capitated payments has important access implications for dual-eligible Medicare Advantage (MA) members. In 2017, MA plans began receiving higher capitated payments for beneficiaries with full vs partial Medicaid when payments started being risk adjusted for level of Medicaid benefits instead of any Medicaid participation. This approach could favor MA plans in states with more generous Medicaid programs where more beneficiaries qualify for full Medicaid and thus a higher capitated payment. To understand this issue, we examined adjusted Medicare spending for dual-eligible beneficiaries across states with differing Medicaid eligibility criteria.

STUDY DESIGN: Retrospective analysis of 2007-2015 traditional Medicare data for dual-eligible beneficiaries 65 years and older.

METHODS: We compared predicted per-beneficiary spending levels after adjusting for any Medicaid participation and for level of Medicaid benefits across states with varying Medicaid eligibility requirements.

RESULTS: States with the most generous Medicaid requirements had more dual-eligible beneficiaries with full Medicaid compared with the most restrictive states (median, 82% vs 55%). Nationally, Medicare spending levels were 1.3 times greater for full vs partial Medicaid participants (range across states, 0.8-1.7). When per-beneficiary spending was adjusted for level of Medicaid benefits, rather than any Medicaid participation, states with more generous Medicaid eligibility had larger gains in predicted spending per dual-eligible beneficiary than states with less generous Medicaid coverage (1.7% vs 1.3% increase).

CONCLUSIONS: Distinguishing between partial and full Medicaid in MA payments may disproportionately increase MA payments in states that have more full Medicaid beneficiaries due to more generous Medicaid eligibility.

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To illustrate how these distinctions may affect MA payments for dual-eligible beneficiaries, this paper describes differences across states in spending for older Medicare beneficiaries with partial and full Medicaid. First, we examine whether states with more generous full Medicaid eligibility criteria have a larger share of beneficiaries with full, vs partial, Medicaid. Second, we examine how differences in spending levels and spending growth between 2007 and 2015 for partial and full Medicaid beneficiaries vary across states. Finally, we contrast states' predicted spending levels for dual-eligible beneficiaries under 2 modeling approaches that differ in how they account for Medicaid participation.

METHODS

Using the Master Beneficiary Summary File (MBSF) for years 2007-2015, we selected Medicare beneficiaries 65 years and older with traditional Medicare. We identified beneficiaries' Medicaid status in July of each year: full Medicaid, partial Medicaid, or Medicare only. Medicaid status was identified in the first or last month of Medicare benefits for those with partial-year enrollment due to Medicare entry or death.

Our analysis excluded long-term nursing home patients because the MA risk adjustment methodology accounts for this population separately and does not distinguish between nursing home users with partial or full Medicaid. To identify nursing home users, we linked MBSF data to Minimum Data Set assessments for 2007-2015. These assessments, completed at specified intervals for all nursing home patients, identified individuals with at least a 90-day nursing home stay based on the presence of at least 1 quarterly or annual assessment in a calendar year.

We measured total Part A and B spending per beneficiary as reported on the MBSF Cost & Utilization segment. The MBSF also provided information on beneficiaries' demographic characteristics and indicators for 26 common health conditions, identified via claims algorithms.

Although Medicaid eligibility rules vary in multiple ways, we focused on income-based requirements for individuals 65 years and older because it is one of the clearest distinctions between whether a dual-eligible beneficiary will qualify for full vs partial Medicaid. We categorized states based on income limits for full Medicaid: no greater than 75% FPL (25 states), between 76% and 88% FPL (8 states), or 100% FPL (17 states and the District of Columbia).⁶ Analyses excluded Alaska due to small numbers of dual-eligible beneficiaries.

We also identified states that have more generous eligibility for partial Medicaid. For beneficiaries with few assets, the federal

TAKEAWAY POINTS

Starting in 2017, capitated payments for Medicare Advantage plans are risk adjusted for members' level of Medicaid benefits instead of any Medicaid participation. This analysis compared how predicted spending for dual-eligible beneficiaries under each approach varied across states with differing Medicaid eligibility criteria.

- ▶ States with more generous eligibility criteria have a larger share of dual-eligible beneficiaries with full, rather than partial, Medicaid benefits.
- ▶ States with more generous eligibility criteria had larger gains in predicted spending per dual-eligible beneficiary when risk adjustment reflected level of Medicaid benefits instead of any Medicaid participation.

TABLE 1. Changes in Identifying Medicaid Participation by Beneficiary's Income Level and State's Income Limits for Full Medicaid*

State's income limit for full Medicaid	Dual-eligible beneficiary's income level		
	Under 75% FPL	76%-100% FPL	101%-135% FPL ^b
Mandated (75% FPL)	Dual	Dual	Dual
Optional (100% FPL)	Dual	Dual	Dual
Level of Medicaid benefits			
Mandated (75% FPL)	Full	Partial	Partial
Optional (100% FPL)	Full	Full	Partial

FPL, federal poverty level.

*The federal government requires states to offer full Medicaid to beneficiaries with income below 75% FPL and partial Medicaid to beneficiaries with income below 135% FPL. States can opt to offer full Medicaid to beneficiaries with income up to 100% FPL. Two states (Connecticut and Ohio) have income limits lower than 75% FPL for full Medicaid under Section 209(b) provisions that allowed states to use pre-1972 eligibility criteria.

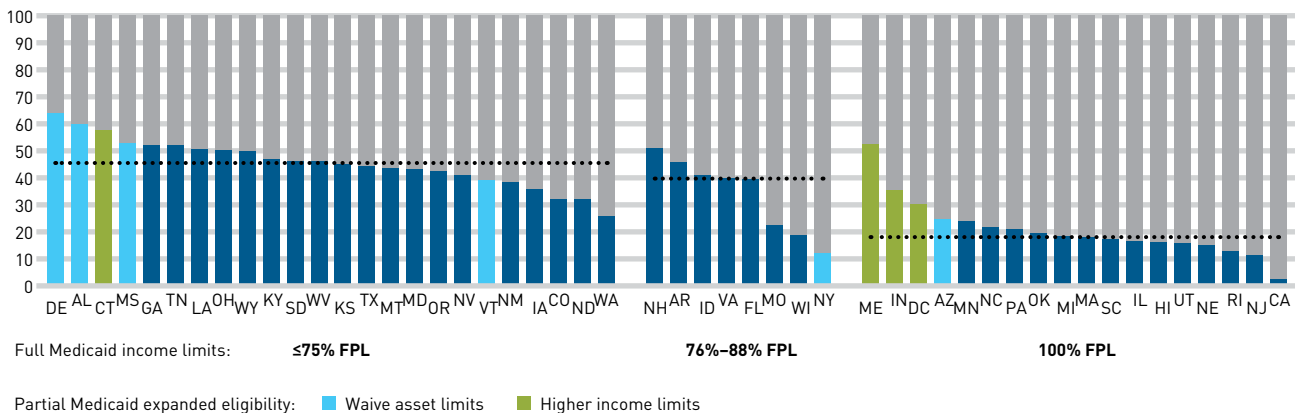
^bAs of 2015, 4 Medicaid programs (Connecticut, Indiana, Maine, and the District of Columbia) offered partial Medicaid to beneficiaries with higher income levels.

government requires state Medicaid programs to cover Medicare premiums for individuals with income below 135% FPL and Medicare cost sharing for individuals with income below 100% FPL. As of 2015, 6 states waived asset tests for partial Medicaid. Another 3 states and the District of Columbia had income limits for partial Medicaid that exceed this federal minimum.⁶

We examined differences in partial and full Medicaid populations across several dimensions. First, we compared the share of dual-eligible beneficiaries by state who have partial vs full Medicaid benefits. Next, we calculated mean per-beneficiary Medicare spending levels for partial and full Medicaid beneficiaries in each state for the years 2007-2015 to compare differences in spending levels and spending growth over time.

Our final objective examined how each state's predicted spending level per dual-eligible beneficiary changed under a risk-adjustment approach that accounted for any Medicaid participation vs an approach that accounted for level of Medicaid benefits. We focused on predicted spending levels because MA capitated payments are largely based on predicted spending levels for traditional Medicare beneficiaries. We examined whether differences in predicted spending levels under these 2 approaches varied for states with the most and least generous eligibility criteria for full Medicaid.

FIGURE 1. Percentage of Dual-Eligible Beneficiaries With Partial Medicaid Benefits by State, 2015^{6,a}



FPL, federal poverty level.

^aBased on authors' analysis of the Master Beneficiary Summary File. Dotted line indicates the median value for states, grouped by income limits for full Medicaid. Information on states' Medicaid eligibility income limits for full Medicaid based on the Kaiser Family Foundation report: Medicaid Financial Eligibility for Seniors and People With Disabilities in 2015.⁶ Connecticut and the District of Columbia waive asset limits in addition to having higher income limits for partial Medicaid.

To predict per-beneficiary spending in a random 10% sample of our study population for the years 2010-2015, we employed generalized linear models with a log link that adjusted for each beneficiary's age, age squared, sex, and the 26 health conditions identified on the MBSF. Because of data limitations, we did not estimate the Hierarchical Condition Category (HCC) score, which is used to risk adjust MA payments and more precisely accounts for beneficiaries' comorbidities.

The main distinction between the 2 risk adjustment approaches that we contrasted is the adjustment for dual-eligible participation. Like the former MA methodology, our first risk adjustment approach included an indicator variable for any Medicaid participation (either full or partial benefits). The second approach followed the new MA risk adjustment methodology by estimating separate models for beneficiaries with no Medicaid, partial Medicaid, and full Medicaid. We calculated the relative and absolute difference in the estimated per-beneficiary spending levels under each approach for all dual-eligible beneficiaries, partial Medicaid participants, and full Medicaid participants. We aggregated the relative and absolute differences in estimated per-beneficiary spending levels for beneficiaries in 2 groups of states: those that offered full Medicaid to beneficiaries with incomes up to 75% FPL and those that offered full Medicaid to those beneficiaries with incomes up to 100% FPL. For this comparison, we excluded states with any expanded partial Medicaid measures or states that had full Medicaid income limits between 76% and 88% FPL.

RESULTS

The share of noninstitutionalized dual-eligible beneficiaries 65 years and older with partial Medicaid varied widely across states from a

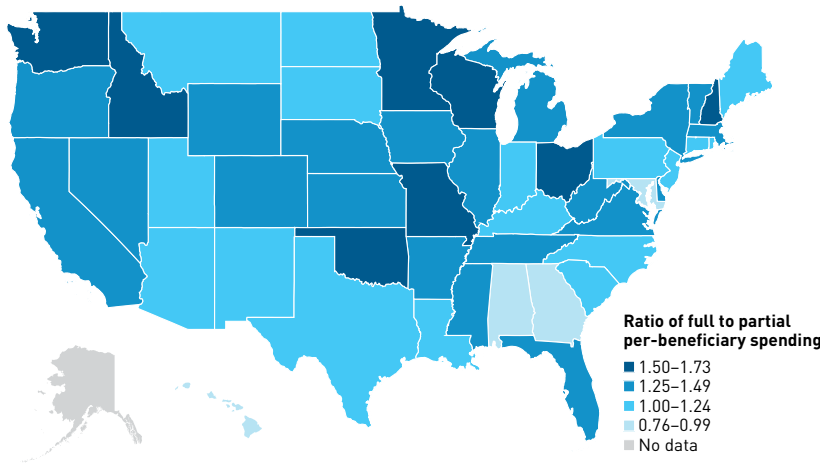
maximum of 64.0% in Delaware to a minimum of 2.3% in California (Figure 1⁶). In states where the full Medicaid income limit is 75% FPL, the median percentage of dual-eligible beneficiaries with partial benefits was 45%. In contrast, the median proportion was 18% in states with a 100% FPL income limit for full Medicaid eligibility. This difference reflects that a greater number of beneficiaries (including those with higher incomes) will qualify for full, rather than partial, Medicaid in states with more generous income limits.

States with more generous eligibility for partial Medicaid also had a larger share of dual-eligible beneficiaries with partial Medicaid benefits. In 6 states that waived asset tests for partial Medicaid, the median share of dual-eligible beneficiaries with partial Medicaid was 46%. The 4 Medicaid programs with higher partial Medicaid income limits had a larger share of dual-eligible beneficiaries with those benefits, particularly Maine and Connecticut (53% and 58%, respectively).

Nationally, full Medicaid participants had per-beneficiary Medicare spending levels that were 1.3 times higher than those of partial Medicaid participants (\$12,762 vs \$10,941) in 2015. Across states, the ratio of per-beneficiary spending for beneficiaries with full vs partial Medicaid ranged from 0.8 in Hawaii to 1.7 in Ohio (Figure 2). Eight states had spending levels for full Medicaid participants that were at least 1.5 times greater than levels for partial Medicaid participants: Idaho, Minnesota, Missouri, New Hampshire, Ohio, Oklahoma, Washington, and Wisconsin. In 4 states, full Medicaid participants had lower Medicare spending levels than partial Medicaid participants (Alabama, Georgia, Hawaii, and Maryland).

Both across and within states, partial and full Medicaid dual-eligible beneficiaries varied in their spending growth patterns. Across states, the median spending growth for full and partial Medicaid participants between 2008 and 2015 was 1.8% and 2.1%, respectively

FIGURE 2. Ratio of Per-Beneficiary Medicare Spending for Beneficiaries With Full Medicaid vs Beneficiaries With Partial Medicaid, 2015*



*Based on authors' analysis of the Master Beneficiary Summary File, including the Cost and Use segment.

(eAppendix Figure [eAppendix available at ajmc.com]). Within a state, spending growth could differ widely for partial and full Medicaid beneficiaries. The absolute within-state difference between spending growth rates for partial and full Medicaid beneficiaries ranged from -5.5 to 2.7 percentage points, with a median difference of -0.4 percentage points.

When we predicted spending separately for beneficiaries by their level of Medicaid benefits rather than adjusting for any Medicaid participation, national predicted costs for full Medicaid participants increased by 2.1% from \$13,255 to \$13,527 (Table 2). Predicted spending for partial Medicaid participants slightly decreased from \$11,504 to \$11,483. When these 2 populations are considered

jointly, national predicted spending for all dual-eligible beneficiaries increased by 1.5% from \$12,794 to \$12,989. When comparing predicted spending results based on adjusting for any Medicaid participation vs level of Medicaid benefits, states with more generous eligibility for full Medicaid had larger increases in predicted spending per dual-eligible beneficiary than states with less generous eligibility. Among states with 100% eligibility thresholds for full Medicaid, predicted spending per dual-eligible beneficiary increased by \$258 (or 2.1%) from \$12,372 to \$12,630 when models accounted for level of Medicaid benefits rather than any Medicaid participation. Among states with 75% eligibility threshold for full Medicaid, predicted spending per dual-eligible beneficiary increased by \$195 (or 1.5%) from \$12,763 to \$12,958. This difference reflects that states with more generous eligibility have a larger share of dual-eligible beneficiaries with full rather than partial Medicaid. In fact, states with more restrictive eligibility had slightly larger increases in predicted spending levels for full Medicaid beneficiaries than states with less restrictive eligibility, suggesting that full beneficiaries were sicker in states with more restrictive criteria. Predicted spending per full Medicaid beneficiary increased by \$344 (2.5%) in more restrictive states compared with an increase of \$287 (2.3%) in less restrictive states. But when examined in terms of spending per all dual-eligible beneficiaries (including those with full and partial benefits), states with more restrictive coverage had smaller increases in predicted spending per beneficiary because a larger share of beneficiaries had only partial Medicaid coverage.

TABLE 2. Difference in Per-Beneficiary Adjusted Spending Under Different Adjustment Models*

	Adjusting for any Medicaid participation (\$)	Adjusting for Medicaid level (\$)	Absolute difference (\$)	Relative difference (%)
All dual-eligible beneficiaries				
All states	12,794	12,989	195	1.5%
States with 100% FPL eligibility for full Medicaid	12,372	12,630	258	2.1%
States with 75% FPL eligibility for full Medicaid	12,763	12,958	195	1.5%
Beneficiaries with full Medicaid				
All states	13,255	13,527	272	2.1%
States with 100% FPL eligibility for full Medicaid	12,531	12,818	287	2.3%
States with 75% FPL eligibility for full Medicaid	13,595	13,939	344	2.5%
Beneficiaries with partial Medicaid				
All states	11,504	11,483	-21	-0.2%
States with 100% FPL eligibility for full Medicaid	11,026	11,039	14	0.1%
States with 75% FPL eligibility for full Medicaid	11,606	11,593	-12	-0.1%

FPL, federal poverty level.

*Results stratified by states' full Medicaid income limits. Stratified results exclude states that have higher income limits for partial Medicaid eligibility or waive asset tests for partial Medicaid eligibility.

DISCUSSION

In 2017, CMS changed how it paid MA plans for dual-eligible members, transitioning from 1 adjustment for all dual-eligible beneficiaries to distinct adjustments for full and partial Medicaid beneficiaries. Risk adjustment should pay plans more for covering beneficiaries with higher spending due to poor health, but our analyses suggest that this new approach may also lead to higher payments for dual-eligible beneficiaries in states with more generous eligibility criteria. These differences might have a negative impact on access and quality of care in MA plans for dual-eligible beneficiaries in states with less generous Medicaid eligibility.

Several differences across states emerged among older dual-eligible beneficiaries without long-term nursing home use. First, the proportion of a state's dual-eligible beneficiaries with partial instead of full Medicaid eligibility varies substantially (from 2% to 64%), with more generous Medicaid states having a higher proportion of full Medicaid beneficiaries. Second, spending levels are greater for full vs partial Medicaid participants in almost all states, but the size of the spending gap differed. Further, differences in spending growth between beneficiaries with partial and full Medicaid varied considerably within some states.

Most notably, a comparison of methods to predict spending for dual-eligible beneficiaries suggested that there are tradeoffs between states in predicted spending levels depending on the approach employed. We contrasted predicted spending levels from a model that adjusted for any participation in Medicaid among all Medicare beneficiaries to estimates from stratified models that predicted spending separately for beneficiaries with partial and full Medicaid. States with the most restrictive Medicaid eligibility criteria had smaller gains in predicted spending levels per dual-eligible beneficiary (1.5%) than states with the most generous Medicaid eligibility criteria (2.1%). This difference reflects that states with more restrictive Medicaid eligibility have a larger share of partial, rather than full, Medicaid participants.

Because the new method separates beneficiaries with the same income and health risks into distinct payment levels based on differences in state Medicaid programs, MA plans may prefer to operate in states with more generous full Medicaid eligibility for 2 reasons. First, the plan will receive higher capitated payments for beneficiaries with income between 76% and 99% FPL who qualify for full Medicaid due to more generous Medicaid eligibility. Second, these low-income beneficiaries will have greater access to full Medicaid-covered services, like nonemergency medical transportation, that could lower Medicare costs. This MA payment policy may systematically disadvantage low-income beneficiaries in states with less generous Medicaid eligibility policies where they are more likely to only qualify for partial Medicaid.

Such considerations also apply to using full Medicaid participation as a proxy for beneficiaries' socioeconomic circumstances in adjusting Medicare's value-based payments and performance measures.^{7,8} These approaches assume that beneficiaries with full

Medicaid are comparable across states, but they ignore that full Medicaid beneficiaries have higher average income and better health in states where it is easier to qualify for full Medicaid.⁹ To account for socioeconomic factors that may increase readmission rates for safety net hospitals, in fiscal year 2019 Medicare began determining hospital readmission penalties by stratifying hospitals according to the proportion of patients with full Medicaid and comparing readmission rates within these strata. Hospitals in states with more generous Medicaid eligibility and a larger share of patients with full Medicaid were less likely to be penalized for hospital readmissions than hospitals in states with more restrictive Medicaid eligibility.¹⁰ A hospital in a restrictive state does not receive any consideration for treating patients with partial Medicaid, even if these patients would qualify for full Medicaid in other states and would change the hospital's comparison group.

In designing Medicare risk adjustment, one consideration is how to equitably allocate funding across beneficiaries with different health care needs and states with different Medicaid programs. Compared with other Medicare beneficiaries without Medicaid, dual-eligible beneficiaries have higher Medicare spending and may be underserved by MA plans if risk-adjustment strategies do not reflect the population's larger costs. Appropriate risk-adjustment methods require understanding the drivers of this spending. A beneficiary's dual-eligible status is often used as a proxy for social risk factors that may increase health care costs, such as housing and food insecurity. However, a beneficiary's dual-eligibility status can be influenced by system-level factors—like state-level Medicaid eligibility rules—that vary within groups of beneficiaries with similar social and health risk factors.

Instead of solely relying on dual-eligibility status to capture social risk, a recent report from the National Academies of Medicine recommended that CMS consider collecting self-reported data to better address social risk factors like race and ethnic background, language, and educational level.⁷ Furthermore, unlike nursing home services, Medicare Advantage's risk adjustment model does not account for beneficiaries' use of Medicaid-funded home- and community-based services (HCBS), which is an important predictor of greater Medicare costs.¹¹ Because HCBS access varies across state Medicaid programs, linking federal Medicare Advantage payments to state-specific Medicaid HCBS would potentially disproportionately benefit individuals in states with more generous coverage of HCBS. Instead of relying on receipt of long-term services and supports, a better approach may be to develop models that adjust for beneficiaries' functional and cognitive impairments through better assessment data.

Limitations

Several limitations should be considered when interpreting our results. First, our adjustment for health risk is not as precise as the CMS-HCC model used for MA payments. Our estimates illustrate a potential bias in Medicare risk adjustment across states, but these results should not be interpreted as the actual difference in per-beneficiary Medicare payments that happened under this policy

change. For example, the new approach more accurately predicted spending for full Medicaid beneficiaries and increased capitated payments for that population.⁴ We cannot evaluate whether these improvements in accuracy resulted in larger payment increases for full Medicaid beneficiaries in states with more restrictive Medicaid eligibility. Our results may overestimate how much this change in risk adjustment disproportionately benefited states with more generous Medicaid eligibility if the accuracy improvements favored states with more restrictive eligibility. Even so, MA plans will be paid more to cover low-income beneficiaries with identical health profiles in states where they qualify for full Medicaid instead of partial Medicaid.

Second, our estimates are based only on traditional Medicare data and do not incorporate other factors in setting MA payment rates, like MA encounter data. Third, as this was a descriptive study, we can only suggest that state Medicaid eligibility rules are correlated, but do not necessarily cause, the differences observed in the dual-eligible population. Finally, we considered only 1 aspect of the multiple ways in which Medicaid eligibility varies across states. Other potentially relevant eligibility pathways that may affect Medicaid participation include medically needy programs and automatic Medicaid coverage for Social Security recipients.¹²⁻¹⁴

CONCLUSIONS

Among the many factors that contribute to variation in health care needs and spending among dual-eligible beneficiaries, we found that state differences in income limits for Medicaid eligibility may be an important influence. To avoid skewing the risk adjustment of Medicare payments for dual-eligible beneficiaries, a more consistent approach for comparing socioeconomic status across Medicare beneficiaries in different states with varying Medicaid eligibility criteria should be considered. ■

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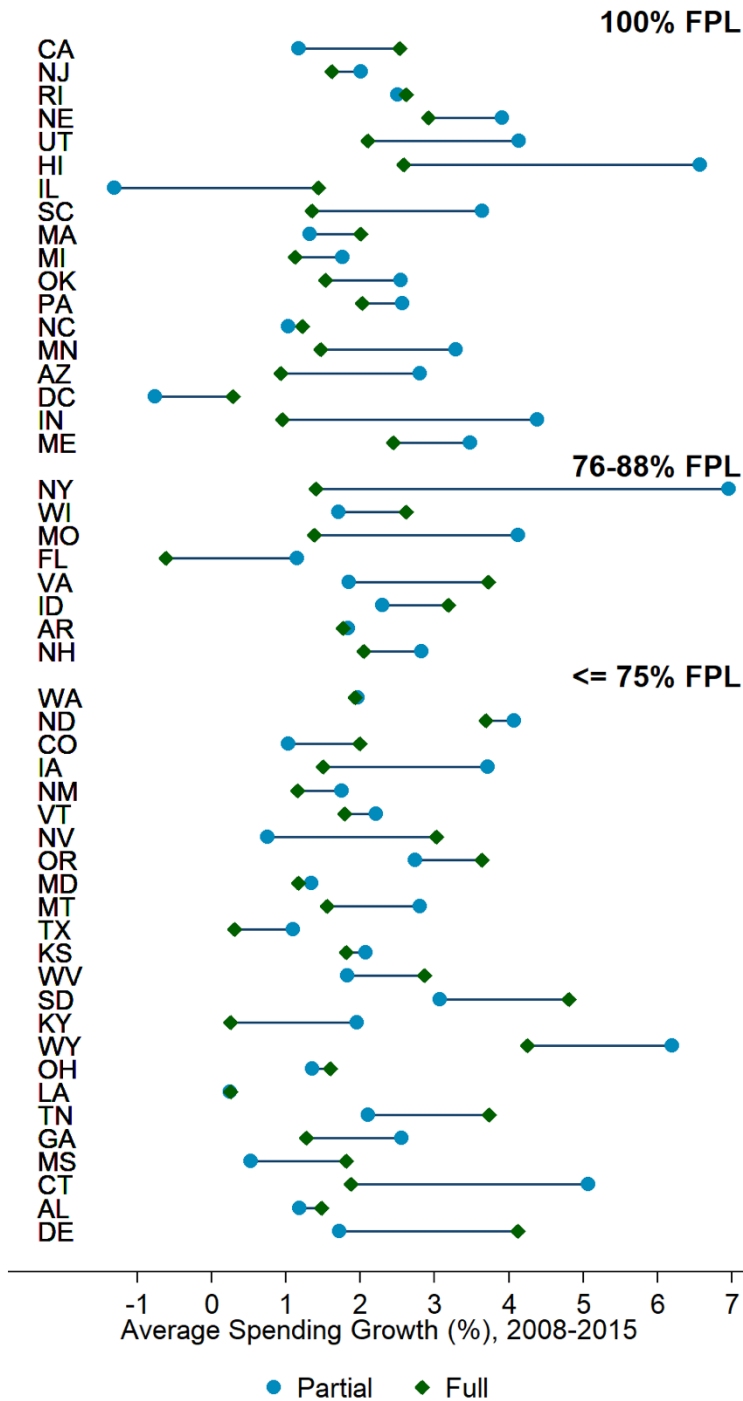
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eAppendix Figure. Change in Per-Beneficiary Medicare Spending for Beneficiaries with Full Medicaid versus Beneficiaries with Partial Medicaid, 2008-2015



States are categorized by Medicaid income limits for full Medicaid and then listed in order of greatest to least share of dual-eligible beneficiaries with partial rather than full Medicaid benefits per-beneficiary.

Notes: Based on authors' analysis of the Master Beneficiary Summary File, including the Cost and Use segment. States are identified based on their state postal codes. The green and blue points indicate average annual per-beneficiary spending growth for full and partial Medicaid participants, respectively, from 2008 to 2015.