December 30, 2020

Seema Verma
Administrator
Centers for Medicare and Medicaid Services
Department of Health and Human Services
Attention: CMS–9914–P
P.O. Box 8016
Baltimore, MD 21244–8016

Re: Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2022 and Pharmacy Benefit Manager Standards; Updates to State Innovation Waiver (Section 1332 Waiver) Implementing Regulations [CMS-9914-P]

Dear Administrator Verma:

Thank you for the opportunity to comment on the "Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2022 and Pharmacy Benefit Manager Standards; Updates to State Innovation Waiver (Section 1332 Waiver) Implementing Regulations" notice of proposed rulemaking issued by the Centers for Medicare and Medicaid Services (CMS). This letter comments on two aspects of the proposed rule related to risk adjustment: (1) a pair of proposals motivated by CMS' concern that the current model underpredicts spending for enrollees with low and very high predicted spending; and (2) a proposal and comment solicitation related to the state option to make an across-the-board reduction in risk adjustment transfers of up to 50%.[1]

In brief, we recommend that CMS finalize its proposal to introduce severity-HCC-count variables into the risk adjustment model but not finalize its proposal to adopt a two-stage procedure for estimating the risk adjustment model coefficients. More generally, we recommend that CMS reconsider its goal of reducing underprediction for enrollees with low predicted spending; we believe that changes along those lines would actually worsen market outcomes by reducing the quality of the coverage available to consumers and by threatening the market's ability to support robust insurer competition. At a minimum, if CMS does seek to reduce underprediction for enrollees with low predicted spending, it should do so in a way that does not worsen overall model fit, which CMS' proposed two-stage estimation procedure is mathematically guaranteed to do.

We also recommend that CMS eliminate the state option to reduce risk adjustment transfers by up to 50% and, failing that, reject Alabama's request to implement a 50% reduction in risk adjustment transfers. We argue that current risk adjustment transfers are most likely already too small and, thus, that scaling down transfers would worsen market outcomes.

Changes Related to Underprediction for Enrollees with Low and High Predicted Spending

CMS proposes two changes to the risk adjustment model motivated by the fact that the model currently underpredicts plan liability for enrollees with low and very high predicted spending. The first change would replace the current severity-HCC interactions in the model with a set of interactions between a severity indicator and several HCC count indicator variables. The second

[1] Please note that the views expressed in this letter are our own and do not necessarily reflect the views of the Brookings Institution, Harvard University, or anyone affiliated with those institutions other than ourselves.

change would implement a two-stage estimation procedure that would assign a higher weight to enrollees with low predicted spending (as estimated in the first stage) in the second-stage regression used to estimate the final risk adjustment model coefficients.

In this section of the letter, we first offer some general comments on how policymakers should evaluate changes to risk adjustment. We make two main points.[2] First—and perhaps counterintuitively—changes that reduce underprediction for enrollees with low predicted spending may actually exacerbate selection incentives and thus *worsen* market outcomes. Second, adding predictor variables that allow risk adjustment to better distinguish higher- and lower-cost enrollees will tend to reduce selection incentives and thus improve market outcomes.

Drawing on this discussion, we then comment on CMS' specific proposed changes. We argue that introducing severity-HCC interactions will likely improve market outcomes but adopting CMS' proposed two-stage estimation procedure will likely worsen market outcomes, perhaps substantially. Furthermore, we note that judging these specific proposals based on how they affect overall risk adjustment model "fit" would lead to the same policy recommendations.

Conceptual Framework for Considering Risk Adjustment Changes

The underlying goal of risk adjustment is to eliminate (or at least weaken) the link between what types of enrollees an insurer attracts and the costs the insurer incurs. Severing this link eliminates insurers' incentive to make plan design and pricing decisions based on how those decisions affect what enrollees they attract. That, in turn, can help avoid (at least) two types of problems:[3]

- *Inadequate plan quality:* High-cost enrollees typically have a higher willingness to pay for more generous coverage (e.g., broader networks, lower cost-sharing, and laxer utilization controls).[4] Thus, without effective risk adjustment, insurers are likely to charge high premiums for plans that offer those features or decline to offer such plans entirely. The result is that enrollees will be driven into overly stingy plans (e.g., plans with excessive cost-sharing, overly narrow networks, or overly stringent utilization controls).

- *Inadequate competition:* Inadequate risk adjustment may also threaten the ability of insurance markets to support robust competition. The individual market in particular appears to feature a substantial number of healthy and extremely price sensitive enrollees who tend to simply choose the cheapest plan available. Without appropriate risk adjustment, this creates a very strong incentive to be the lowest-priced plan since the lowest-priced plan will capture these healthy price-sensitive enrollees while its competitors will not. In ongoing work, one of us (Layton) has found that, in markets with many competing issuers, the resulting "race to the bottom" in premiums can cause *all* insurers to

[2] Throughout this section our main focus is on how these changes would affect the individual market. Our main qualitative conclusions likely apply to the small group market as well, although their quantitative importance is likely smaller since adverse selection is less intense in the small group market.

[3] Some recent research emphasizes that risk adjustment can also change how many people enroll in coverage by changing the premium of the lowest-cost plan options. But the structure of the premium tax credit largely eliminates those effects in the context of the individual market, so we do not consider those effects in this comment letter. See Michael Geruso et al., "The Two Margin Problem in Insurance Markets," SSRN Scholarly Paper (Social Science Research Network, May 3, 2019), https://papers.ssrn.com/abstract=3385492.

[4] See, for example, Geruso et al.

incur losses. As a result, insurers will be forced to exit until just one or two insurers remain, leaving consumers with high premiums and little plan variety.[5]

In light of these potential harms, an important question is how risk adjustment transfers should be calculated to minimize insurers' incentives to engage in risk selection. A conventional approach, which is embodied in CMS' current risk adjustment methodology, is to develop a model that predicts enrollee-level spending as well as possible based on a set of observed enrollee characteristics (in CMS' case age, sex, and HCCs) and then calculate risk adjustment transfers based on the difference in average predicted spending across insurers. Under this approach, it is natural to choose risk adjustment coefficients to maximize measures of model "fit," like R^2.

But the seminal economics research on the design of an optimal risk adjustment system suggests that the transfers generated by this approach will generally be too small to fully mitigate selection incentives.[6] This is because many aspects of health status are not observed for risk adjustment purposes, so there is substantial variation in health care needs even among enrollees that look identical to the risk adjustment system. Furthermore, it is generally reasonable to expect that a plan that disproportionately attracts enrollees who appear high-cost on the characteristics that *are* captured in risk adjustment will also attract costlier-than-average enrollees within any given observable group.[7] (For example, a plan that attracts a disproportionate share of diabetics is likely to also attract diabetics who cost more, on average, than diabetics overall.)

Consequently, fully mitigating selection incentives is likely to require "underpaying" for enrollees with characteristics that predict low spending and, similarly, "overpaying" for enrollees with characteristics that predict high spending. In principle, this can be achieved via the transfer formula by scaling up transfers beyond the level suggested by risk score differences. But it can also be achieved by calculating risk scores in a way that *underpredicts* spending for enrollees with low predicted spending and *overpredicts* spending for enrollees with high predicted spending.

The preceding discussion supports two conclusions that will be useful in assessing CMS' current proposals. First, the fact that CMS' current methodology underpredicts spending for enrollees with low predicted spending is likely a blessing in disguise. Thus, all else equal, efforts to remedy this "problem" would actually exacerbate selection incentives, with deleterious downstream effects on plan quality and competition. On the other hand, the analysis above suggests that underpredicting

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[5] Edward Kong, Timothy Layton, and Mark Shepard. "Adverse Selection, Price Sensitivity, and Instability in Insurance Markets." Work in progress.

[6] See Jacob Glazer and Thomas G. McGuire, "Optimal Risk Adjustment in Markets with Adverse Selection: An Application to Managed Care," *The American Economic Review* 90, no. 4 (2000): 1055–71; Jacob Glazer and Thomas G. McGuire, "Setting Health Plan Premiums to Ensure Efficient Quality in Health Care: Minimum Variance Optimal Risk Adjustment," *Journal of Public Economics*, ISPE Special Issue, 84, no. 2 (May 1, 2002): 153–73, https://doi.org/10.1016/S0047-2727(01)00123-2. For a recent empirical illustration of this finding, see Timothy J. Layton, Thomas G. McGuire, and Richard C. van Kleef, "Deriving Risk Adjustment Payment Weights to Maximize Efficiency of Health Insurance Markets," *Journal of Health Economics* 61 (September 1, 2018): 93–110, https://doi.org/10.1016/j.jhealeco.2018.07.001.

[7] For empirical evidence on this point, see: Geruso et al., "The Two Margin Problem in Insurance Markets"; Vilsa Curto et al., "Health Care Spending and Utilization in Public and Private Medicare," *American Economic Journal: Applied Economics* 11, no. 2 (April 2019): 302–32, https://doi.org/10.1257/app.20170295.

spending for enrollees with very high predicted spending is indeed pernicious and that fixing this problem would reduce selection incentives and improve plan quality.[8]

We note that this conclusion would not hold if the current combination of underprediction for enrollees with low and very high predicted spending was generating excessive risk adjustment transfers on net. But actual experience offers little reason to believe that this is the case. Indeed, it is striking that the individual market has become increasingly dominated by tightly managed plans with narrow networks.[9] While this could in principle be solely a response to consumer demands for low-cost plans, it is consistent with substantial selection incentives remaining even after risk adjustment. At a minimum, this pattern suggests there is little reason to worry that current risk adjustment transfers are substantially too large since transfers of this magnitude would be expected to drive these types of plans from the market.

Second, while maximizing model fit is the wrong overarching goal for risk adjustment, it is still the case that improving model fit by adding new predictor variables will often reduce selection incentives. As described above, the conventional approach of choosing risk adjustment coefficients to maximize the model R^2 goes awry because it fails to account for variation in spending associated with aspects of health status that are not captured in the available predictor variables. Thus, adding predictor variables that allow the model to better distinguish between higher- and lower-cost enrollees and, correspondingly, reduce the amount of unexplained spending variation will tend to ameliorate the disadvantages of choosing model coefficients to maximize R^2.

Implementation of Severity-HCC-Count Interactions

CMS' proposal to add severity-HCC-count interactions seems likely to reduce selection incentives and, thus, improve market outcomes. Adding these predictor variables improves model fit (as measured by R^2) by allowing the model to better distinguish higher- and lower-cost enrollees.[10] Additionally, CMS indicates that the proposed change particularly ameliorates underprediction at the top of the predicted spending distribution. Thus, the lessons drawn from the optimal risk adjustment literature discussed above suggest that this model change would reduce overall selection incentives. The fact that this change would increase the risk adjustment model's R^2 means that it is also attractive from the conventional perspective of maximizing overall model fit.

The main potential concern with this change is that including HCC count variables may encourage insurers to invest additional resources in diagnosis coding. It is unclear, however, how large the incremental coding incentives under this approach actually are, and the benefits of reducing

[8] The scope to *improve* competition by avoiding a race to the bottom in premium setting may be limited in light of the recent recovery in plan participation in the individual market. See Daniel McDermott and Cynthia Cox, "Insurer Participation on the ACA Marketplaces, 2014-2021," November 23, 2020, https://www.kff.org/private-insurance/issue-brief/insurer-participation-on-the-aca-marketplaces-2014-2021/.

[9] See, for example: Erica Coe, Jessica Lamb, and Suzanne Rivera, "Hospital Networks: Perspective from Four Years of the Individual Market Exchanges" (McKinsey and Company, May 2017), https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/hospital-networks-perspective-from-four-years-of-the-individual-market-exchanges; Erica Coe, Alex Luterek, and Jim Oatman, "Insights into the 2019 Individual Exchange Market" (McKinsey and Company, December 2018), https://healthcare.mckinsey.com/insights-2019-individual-exchange-market.

[10] In particular, CMS states that the combination of this change and the change to a two-stage estimation procedure increases the overall model R^2. Since, as discussed below, the change to a two-stage estimation procedure must reduce the model R^2, it follows that this change to the model must improve the model R^2.

underprediction among high spenders may be substantial, so those costs are likely worth bearing. Looking ahead, however, CMS should explore alternative approaches that could improve the model's predictions for enrollees with high predicted spending that might avoid this problem.

Recommendation: CMS should finalize this change.

Implementation of a Two-Stage Estimation Procedure

By contrast, CMS' proposal to adopt a two-stage estimation procedure appears likely to *increase* selection incentives and worsen market outcomes. CMS' proposed weighted regression approach prioritizes finding model coefficients that accurately predict spending for enrollees who are predicted to have low spending in the first-stage regression, while deprioritizing accuracy in other groups. CMS unsurprisingly finds that this approach both reduces underprediction among enrollees with low predicted spending *and* exacerbates underprediction among enrollees with high predicted spending. Consistent with the lessons from the optimal risk adjustment literature discussed at the beginning of this section of our letter, changes like these are likely to increase insurers' incentives to engage in risk selection.

We believe that reducing underprediction for enrollees with low predicted spending may be particularly harmful. Paralleling the more general discussion presented earlier in this letter, the core issue is that health status varies in ways not captured by age, sex, and HCCs. Within the group of enrollees who have low predicted spending (based on age, sex, and HCCs) are some "extremely healthy" enrollees likely to have spending levels that are *lower* than the level predicted by the model and some "merely healthy" enrollees likely to have spending levels somewhat higher than the level predicted by the model. As a result, if risk adjustment accurately predicts spending for people with low predicted spending on average (that is, averaging across both the extremely healthy and the merely healthy), it will tend to *overpredict* spending for the extremely healthy enrollees, and insurers will have strong incentives to attract these enrollees.

It is likely that these extremely healthy enrollees are among the most price-sensitive enrollees in the market (caring most about a low premium and little about the plan's network, deductible, etc.). Thus, some degree of underprediction at the bottom of the predicted spending distribution is necessary in order to ensure that the overprediction for the extremely healthy types is not too extreme. Absent this underprediction, insurers will prioritize charging the lowest possible premium in order to attract the highly profitable extremely healthy types, potentially causing a "race to the bottom" in plan quality and forcing some plans from the market.

CMS' proposed change is also mathematically guaranteed to worsen overall model fit, at least as measured by the model R^2. The standard theory of linear regression implies that estimating model coefficients using an unweighted regression, as CMS currently does, selects the coefficients that generate the highest possible model R^2.[11] Thus, any other estimation methodology—including CMS' proposed two-stage procedure—must necessarily achieve a lower R^2. Of course, as we have argued above, there are strong rationales for deviating from the goal of maximizing model fit, but the main arguments for doing so *do not* support prioritizing reducing underprediction among enrollees with low predicted spending; indeed, they argue for doing precisely the opposite.

[11] Technically, CMS currently estimates model coefficients using a weighted regression in which enrollees are weighted in accordance with their months of enrollment and thus maximizes the corresponding weighted R^2.

Recommendation: CMS should not finalize this change. Furthermore, it should reconsider its goal of reducing underprediction for enrollees with low predicted spending since doing so will create strong incentives for insurers to attract the healthiest enrollees and could thereby reduce plan quality or the number of competing plans. If CMS nevertheless wishes to make changes that would reduce underprediction among enrollees with low predicted spending, it should at least seek approaches to achieving this goal that do not reduce overall model fit.

State Option to Reduce Risk Adjustment Transfers

Since the 2020 plan year, states have been permitted to submit a request to reduce risk adjustment transfers in their individual and small group markets by up to 50%. To date, states have been required to request reductions one year at a time. CMS is proposing to allow states to request reductions for a three-year period.

We see no strong analytic justification for allowing states to make this type of *ad hoc* reduction in risk adjustment transfers. As discussed above, it appears more likely than not that the risk adjustment transfers generated by the national methodology are actually too *small* to fully mitigate incentives for risk selection, so reducing transfers is likely a step in the wrong direction, further enhancing the profitability of the healthiest enrollees and pushing insurers to design their plans to attract these enrollees by reducing premiums at the cost of plan quality.

In the past, CMS has justified allowing these *ad hoc* reductions by arguing that the national methodology may not adequately account for state-specific characteristics. It is important to note, however, that the national methodology already implicitly adjusts for a wide range of state-specific characteristics. In particular, the existing methodology automatically accounts for differences in the types of individuals enrolled in different states. Similarly, because the average premium used in the transfer formula is computed at the state level, the existing methodology also accounts for aggregate differences in health care prices and utilization across states.

In principle, state-specific reductions could be justified if there were very large differences in the *relative* spending of people with different characteristics in different states (beyond what is captured in the statewide average premium). However, CMS has never presented evidence that large differences in relative spending like these exist, much less that those differences are large enough to justify reducing risk adjustment transfers by up to 50%.

Recommendation: Rather than allowing states to submit requests to reduce risk adjustment transfers less frequently, CMS should eliminate this state option.

Alabama's Request to Reduce Risk Adjustment Transfers by 50%

CMS also seeks comment on a request by Alabama to newly implement a 50% reduction in risk adjustment transfers in its individual market for the 2022 benefit year and to continue a similar reduction in risk adjustment transfers in its small group market. This request appears unlikely to improve market outcomes for all of the reasons discussed above.

Additionally, the state has also failed to provide "evidence and analysis demonstrating the State-specific factors that warrant an adjustment to more precisely account for the differences in actuarial risk," as required at 45 CFR 153.320(d)(1). The state does make a vague assertion that risk adjustment functions poorly "in markets like Alabama's with an extremely unbalanced market share." In particular, the state appears to be concerned that issuers with smaller market shares are

being required to make payments to a large incumbent issuer. However, it provides no actual evidence that this reflects problems with the risk adjustment program as opposed to differences in enrollee characteristics that are appropriately accounted for in risk adjustment.

Moreover, if the underlying concern is that the state's large incumbent issuer is better positioned to code diagnoses than smaller issuers, an across-the-board reduction in risk adjustment transfers is a poor way of addressing that problem. Implementing this type of across-the-board reduction greatly increases issuers' incentives to avoid enrollees with serious health care needs and thus has the potential to undermine the quality of the plans available in Alabama's market. A far better approach would be to implement an *additive* adjustment to the average risk score of the incumbent issuer at a level adequate to offset any perceived coding advantage.

The state also asserts that some issuers might withdraw from its market if its request were not granted, but it again provides no evidence in support of that claim. Even if true, it is unclear how this fact would, in itself, constitute evidence that the proposed adjustment would more precisely account for differences in actuarial risk, as required by CMS' regulations.

Recommendation: CMS should reject Alabama's request to reduce risk adjustment transfers as it applies to both the state's individual market and the state's small group market.

Thank you for the opportunity to comment on CMS' proposed rule. We hope this information is helpful to you. If we can provide any additional information, we would be happy to do so.

Sincerely,

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