A case study on the actuarial implications of a Medicare Advantage buy-in option for older adults

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We are rapidly approaching another presidential election, and it is no surprise that healthcare is among the key policy considerations under debate by the candidates. Current proposals range from plans that build upon the coverage options introduced by the Patient Protection and Affordable Care Act (ACA) to a single-payer system, also known as “Medicare-for-all.” Somewhere in between is a proposal that allows individuals aged 50 through 64 to “buy in” to the current Medicare program.

There are two Medicare buy-in policies proposed in Congress as of the writing of this article.¹ Both of these policies would allow individuals aged 50 through 64 to enroll in a Medicare buy-in plan (that is, a public option structured in ways similar to traditional Medicare) or a private Medicare Advantage and Part D (MA-PD) buy-in plan.² These buy-in plans would share the name “Medicare” and some of Medicare’s features, but the economics around the funding of the program would be distinctly different. In particular, the benefits and administrative expenses for a buy-in plan would be funded entirely through member premium, while the vast majority of funding for traditional Medicare and MA-PD comes from the federal government.

### KEY FEATURES OF TRADITIONAL MEDICARE AND BUY-IN REFORM PROPOSALS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Traditional Medicare</th>
<th>Traditional MA-PD</th>
<th>Public option Medicare buy-in</th>
<th>MA-PD buy-in</th>
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<tbody>
<tr>
<td><strong>Funding</strong></td>
<td>Federal government pays providers directly.</td>
<td>Federal government pays private insurance plans a capitation rate to provide coverage to MA-PD beneficiaries.</td>
<td>Federal government charges a member premium to cover 100% of benefits and administrative costs.</td>
<td>Private insurance plans charge a member premium to cover 100% of the cost of benefits and administrative costs.</td>
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<td></td>
<td>Member pays a Part B premium ($135.50 in 2019).</td>
<td>Private plans may charge a premium for enhanced benefits.</td>
<td>Federal government may provide subsidies to individuals to cover a portion of their premiums.³</td>
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<tr>
<td><strong>Member cost sharing</strong></td>
<td>Standard Medicare deductibles and cost sharing apply.</td>
<td>Deductibles and cost sharing may or may not apply.</td>
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<tr>
<td><strong>Provider reimbursement</strong></td>
<td>Participating providers accept Medicare fee levels.</td>
<td>Providers negotiate rates with private insurers (typically in the range of Medicare fee levels).</td>
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<td><strong>Provider network</strong></td>
<td>All Medicare participating providers.</td>
<td>Network of providers established by plan.</td>
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<td>Subject to network adequacy requirements.</td>
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² Traditional MA-PD plans are offered by private insurance companies that contract with the government to provide healthcare benefits at least as generous as original Medicare. The popularity of these plans has been growing steadily in recent years.

³ Both buy-in plans proposed would also provide assistance that is substantially similar to the cost-sharing subsidies provided in the individual market today.
Fundamentally, determining which changes to the healthcare system are best for the United States is a political question. However, actuarial investigation can be essential in understanding the potential financial and risk management implications of a proposal, including whether it is likely to achieve its stated goals.

We performed a case study on the actuarial implications of one potential Medicare buy-in option. The scenario we considered would permit individuals aged 50 through 64 who are not eligible for Medicare, Medicaid, or employer group coverage to purchase a plan that looks like a typical MA-PD plan.

The purpose of this case study was to explore the concept of an MA-PD buy-in option by analyzing potential outcomes under one set of policy and program characteristics. The case study was designed with consideration to the buy-in programs currently proposed, but it was not a comprehensive study of any specific policy.\(^4\) Our analysis focused on understanding what the potential financial outcomes might be if older enrollees leave the individual health insurance market and purchase an MA-PD buy-in plan instead. Key questions we were seeking to answer include:

1. How many individuals who are currently uninsured or currently enrolled in the ACA individual market would become eligible for a Medicare buy-in plan?
2. How would premium rates for a buy-in plan compare to premium rates in the individual ACA market?
3. What are the potential implications of a buy-in plan on healthcare providers?

The truth is that the answers to these questions are not one-size-fits-all. The impact of a buy-in plan on any one individual varies based on that person’s unique set of circumstances. For many, a buy-in plan could be a better option financially, while for others it may not be. A significant portion of any savings achieved through a buy-in plan is likely to come from reductions in reimbursement to providers, with the overall impact to any one provider varying by region and patient mix.

This case study is not intended to support any particular political position. Instead, it provides a way to identify important considerations for potential future expansions of public programs, given the recent attention on the concept. All estimates regarding the impact of potential expansions are subject to significant uncertainty, and actual events may unfold in materially different ways from these estimates under any specific healthcare policy.

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\(^4\) In particular, the scenario we modeled assumed that individuals currently eligible for employer group coverage would not be eligible for the buy-in plan. Both proposals in Congress open the buy-in to employees.

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**Case study overview**

There are numerous policy decisions to consider in designing a buy-in program, many of which will influence enrollment volume and premium rate levels. Our case study was designed around one specific set of assumptions that we believe provides a reasonable framework for considering the actuarial implications of a buy-in program. Many of these assumptions are consistent with the buy-in policies currently proposed by Congress.

**FIGURE 1: WORD CLOUD – POLICY CONSIDERATIONS**

Our case study was designed under the following assumptions:

*Eligibility:* We assumed that the buy-in would be voluntary, and that individuals aged 50 through 64 who are currently uninsured or enrolled in the individual market would be eligible to enroll. The buy-in would not be available to individuals eligible for employer-sponsored coverage, individuals already eligible for Medicare, or anyone who is eligible for Medicaid.

For purposes of our case study, we did not explicitly model individuals who are currently uninsured or enrolled in transitional or grandfathered plans. However, we would expect that including those populations in our analysis would put downward pressure on the buy-in premium rate. In general, individuals who choose to remain uninsured are often healthier than those who purchase coverage. A review of risk scores from a large benchmark research database also suggests that the transitional and grandfathered populations are healthier than the current ACA individual market population on average (although the relationships in the data we reviewed may not apply uniformly across regions). The transitional and grandfathered populations are also very small and continue to decline.

As noted previously, both of the buy-in policies currently proposed in Congress would extend coverage under a buy-in plan to the employer group market. We performed a similar review of nationwide risk scores from the same benchmark research database and found that the employer group market is also healthier than the current individual ACA market on average. It is likely that allowing individuals with employer-sponsored coverage to enroll in the buy-in would put further downward pressure on buy-in premium rates.
Risk pools: We assumed that the buy-in program would be its own risk pool, funded through member premiums and premium subsidies transferred from the individual market for low-income enrollees.

Fee schedule: Traditional Medicare Advantage plans negotiate payment rates with providers, and those rates are typically similar to Medicare levels. For purposes of this case study, we assumed provider payment rates would be negotiated at 100% of the Medicare fee schedule.

The buy-in policies currently proposed would require providers to accept Medicare payment rates for a public option buy-in plan, which are typically much lower than rates in the current individual market. The proposals would also allow the Secretary of the U.S. Department of Health and Human Services (HHS) to negotiate drug prices. The impact of drug price negotiations was not considered in our case study. Generally speaking, negotiating lower drug prices would put downward pressure on premium rates.

Benefits and network: We modeled a buy-in plan with benefits similar to zero-dollar premium MA-PD plans available in the market today. MA-PD plans generally offer benefits that are more generous than traditional Medicare (for example, they include a maximum out-of-pocket limit), and are very popular in many regions, especially among younger individuals who are new to Medicare. The actuarial value for the MA-PD buy-in plan priced in our case study is approximately 85%.

Rating factors: We assumed the buy-in plan would be community-rated within a plan’s service area, consistent with rating requirements for Medicare Advantage plans. Individual market plans under the ACA are allowed to vary rates by age, region, and tobacco use in states that do not require community rating.

Retention: Administrative expenses and margin levels were assumed to be similar to the levels filed for typical 2019 individual market ACA and Medicare Advantage plans.

Risk adjustment: We assumed the buy-in plan would be priced at the average risk level for the region (that is, if multiple insurers participated in the buy-in market, a risk adjustment mechanism would be in place that requires insurers to price to the average risk profile for the market).

Subsidies: Both of the existing buy-in proposals would provide financial assistance to buy-in enrollees that is substantially similar to the value of advanced premium tax credits (APTCs) and cost-sharing reduction (CSR) subsidies available in the individual market. In our case study, we assumed that individuals would be able to use APTCs from the ACA market toward the purchase of a buy-in plan. However, because CSR subsidies are currently no longer funded by the federal government and the buy-in plan is already more generous than most CSR variants, we assumed CSR subsidies would not be applicable to the buy-in plan.

Market equilibrium: A Medicare buy-in plan would be disruptive to existing markets, and it would likely take a number of years for rate levels to stabilize. Our case study assumes rational pricing in a market that has reached a steady state of equilibrium.

5 As a point of reference, the newly enacted Washington state Cascade Care public option plan limits reimbursement to providers and facilities to 160% of Medicare fees. The full text of Washington state Senate Bill 5526, passed April 27, 2019, is available at http://lawfilesexpert.leg.wa.gov/biennium/2019-20/Pdf/Bills/Senate%20Passed%20Legislature/5526-S.PL.pdf#page=1.

6 The percentage of the total average cost of covered benefits (excluding member premium) paid for by a health plan. For example, if a plan has an actuarial value of 70%, the member would be responsible for 30% of the costs of all covered benefits on average.

How many individuals who are currently uninsured or currently enrolled in the ACA individual market would become eligible for a Medicare buy-in plan?

We estimate that there are around 3.6 million uninsured individuals and 6.8 million individual market members (including transitional and grandfathered members) who are between the ages of 50 and 64 and would be eligible for a buy-in program. If all 10.4 million eligible individuals were to enroll in the buy-in, the size of the buy-in population would be approximately 22% of the size of the Medicare population. These estimates are all based on publicly available population information for 2017.

It is important to note that nearly half of the U.S. population is currently covered by employer-sponsored insurance. The size of the eligible buy-in population would increase significantly if it were available to individuals currently enrolled in an employer group plan. Both of the buy-in policies proposed as of the writing of this article would extend eligibility to the employer group market. It is also possible that a portion of individuals between the ages of 50 and 64 are remaining in the workforce for the purpose of retaining their health benefits. The buy-in population would grow if those individuals find the Medicare buy-in plan to be a viable alternative and choose to retire (thereby forgoing their employer-sponsored coverage options).

How would premium rates for a buy-in plan compare to premium rates in the individual ACA market?

BUY-IN PREMIUMS COMPARED TO EXISTING ACA INDIVIDUAL MARKET PREMIUMS

One of the primary goals of a buy-in plan would be to offer an affordable and accessible comprehensive healthcare coverage option for older individuals. To explore how the buy-in might compare to existing individual market options, we used actual ACA individual market benchmark data for one state in the United States to develop hypothetical 2019 premium rates for the individual ACA marketplace in that state.8 We then carved the population aged 50 through 64 out of that benchmark data and used it to develop premium rates for the buy-in scenario described earlier.

As shown in Figure 3, we found that the buy-in plan in our scenario would be a lower premium option relative to existing individual marketplace options on average and for the majority of eligible individuals, but for some it would be higher. The main driver of differentials between buy-in premiums and ACA market premiums was that provider reimbursement rates were lower under the buy-in. The allowed claim costs for the ACA individual market population studied in our benchmark data varied by service and were estimated to be approximately 155% of Medicare reimbursement levels on average across all services. Requiring providers to accept payment at 100% of Medicare fees for the buy-in population put significant downward pressure on the buy-in premium rates in our case study.

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8 Our hypothetical ACA gold premium estimates were within 10% of actual statewide ACA gold premiums available in the marketplace in the state studied.
The differential between the buy-in premium and ACA individual market premiums would also vary significantly depending on an individual’s circumstances.

**Age:** Individual market premiums are allowed to vary by age in most states, and the rates for a given plan increase by 68% between the ages of 50 and 64 under the federal age curve. If the buy-in plan is community-rated, any premium savings under the buy-in would be larger for older individuals than younger individuals (all else equal).

**Region:** Individual market premiums are also allowed to vary by specific rating areas defined by the state under the ACA. If the buy-in plan is community-rated across a broader region (our case study assumed the plan’s service area spans the entire state), individuals living in higher-cost regions may find that it offers more savings than individuals living in lower-cost regions (all else equal).

**Level of benefit richness (metallic level):** The buy-in plan priced in our case study was similar in richness to an ACA gold plan or 84% silver CSR variant in the individual market. Standard silver, bronze, and catastrophic metallic level plans with leaner benefit designs may offer a premium level that is closer to or lower than the buy-in. However, premium rates for silver plans are artificially higher (i.e., “loaded”) in many states to account for the de-funding of CSR subsidies by the federal government, so silver rates are similar or even greater than gold rates in many of those states.  

BUY-IN PREMIUMS COMPARED TO REPRICED ACA INDIVIDUAL MARKET PREMIUMS

Comparing the buy-in premium to existing ACA individual market premiums demonstrates how the buy-in plan might compare to individual market options currently available in the market today. Of course, the ACA individual market premiums would need to change if a significant portion of the eligible buy-in population leaves the individual market risk pool. In reality, a number of factors influence each individual’s decision on whether or not to change coverage. As a starting point, we can estimate what might happen if all eligible individuals elect the buy-in plan. What would that do to the individual market premium rates?

We estimated the potential impact of a buy-in plan on the individual market by developing premium rates for the cohort of individuals in our benchmark data under the age of 50, again assuming that all individuals eligible for the buy-in would choose to enroll.

Figure 4 shows how the buy-in premium compares to individual market ACA premiums at select ages in the state we studied when the individual market ACA premiums are repriced using claim data for the population under age 50. The dotted lines show how the repriced premium rates compare to our estimates of the existing average premium rates shown above in Figure 3.

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As shown in Figure 4, we found that premium rates increased in the individual ACA market when the older population moved to the buy-in. This may seem counterintuitive, because older individuals typically have higher claim costs than younger individuals. However, our analysis showed that the age rating curve in the ACA individual market was steeper than the claim cost curve for the population included in our case study. In other words, the premium charged to older members was more than enough to cover their claims, while the premium charged to younger members was not enough to cover their claims (so the older population was essentially subsidizing the younger population). When we moved the older members out of the individual market risk pool to the buy-in, the premium for the younger individual market members that remained needed to increase to cover their costs.

We reviewed the ACA claim cost curves in our benchmark data for a variety of other regions to rule out a potential anomaly in the region used in our case study. We found the relationship between claim costs and the age curve held true to varying degrees in all of the regions we reviewed.

This scenario where the entire eligible population moves to the buy-in is a simplification. As noted earlier, one of the key assumptions in our analysis is that the buy-in plan is voluntary, meaning that individuals would be free to choose whether to purchase the Medicare buy-in plan or an individual market plan (or neither). This element of selection affects the pool of individuals covered in each market and is an important consideration that would need to be reflected in pricing.

Selection Considerations

Individuals try to select healthcare coverage options that are in their best interest

- **Price**
  Individuals generally seek the highest value for the lowest price

- **Benefit design**
  Individuals with perceived healthcare needs tend to seek plan designs with broad coverage (or coverage of particular services or drugs) and lower cost sharing

- **Choice in healthcare providers**
  Individuals value choice in healthcare providers, so a broader network is generally more valuable than a more restricted network, particularly for individuals with perceived healthcare needs

- **Familiarity or preference in insurance carrier or customer service**
  Individuals may be reluctant to switch plans if they are familiar with their existing plans, unless the perceived value of switching is more significant

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10 Figure 4 shows individual market ACA premiums for individuals aged 50, 57, and 64, but individuals 50 and over were not included in the repriced premiums (solid lines). The ACA rates shown are what would be offered to individuals at those ages based on premiums developed for the younger population and the application of the federal age curve.

We modeled selection by simulating choice among cohorts of members based on their total expected out-of-pocket costs (that is, the sum of both after-subsidy premiums and member cost sharing). We used an iterative process whereby we developed premium rates for the individual market and buy-in plans, modeled decisions, repriced each market based on those decisions, and repeated that process until decisions and premium rates converged.

Figure 5 shows the movement of eligible buy-in individuals between the buy-in plan and the individual market under three different selection scenarios. The light blue colored bars on the right-hand side of the charts represent the portion of eligible individuals moving to the buy-in. The dark blue colored bars on the left-hand side of the charts represent the portion of eligible individuals remaining in the ACA market. We modeled three separate selection scenarios:

1. The “all eligible choose buy-in” scenario assumes all eligible buy-in members leave their individual market plans and move to the buy-in.
2. The “high selection” scenario assumes that eligible individuals always select the option that is expected to result in the lowest out-of-pocket cost (estimated cost sharing and premium).
3. Finally, the “practical selection” scenario assumes that eligible individuals consider their total out-of-pocket costs, but don’t always choose the lowest-cost option (however, the likelihood of selecting the lowest-cost option increases as the anticipated savings associated with that option increase).

Our case study demonstrated the following selection considerations:

- Younger individuals and those living in lower-cost regions may have lower premium options in the individual market.
- Healthier individuals in lower-cost metallic plans may be more likely to remain in the ACA market if they value low premium and don’t expect to incur significant amounts of cost sharing.
- Some unhealthy individuals in very generous metallic plans (that is, platinum plans with low cost sharing) may find that the savings achieved through lower cost sharing in the individual market is worth more than the differential in premium between the individual market and the buy-in plan.
- Individuals who have high premium subsidies and high CSR subsidies may find that their individual market plans provide more generous benefits at little to no extra cost to them.
Figure 6 compares individual market ACA premiums to the buy-in premium under the “practical selection” scenario. When comparing this scenario to the “all eligible choose buy-in” scenario, the individual market ACA premiums are lower and the buy-in premium is higher. This is because, in the “practical selection” scenario, many of the younger and healthier individuals eligible for the buy-in choose to stay in the individual market (and, as noted before, buy-in eligible individuals subsidized younger individuals on average in the market studied). While it is true that some of the very high-cost members choose to remain in their platinum or highly subsidized CSR plans, those members make up a very small fraction of the population.

**POTENTIAL IMPLICATIONS OF PREMIUM SUBSIDIES**

Advanced premium tax credits (APTC) are federal subsidies provided to low-income individuals who purchase an individual market healthcare plan through a state marketplace. The amount of APTC an individual receives is based on that person’s income level, age, and the premium rate for the second-lowest silver plan in the county where they live. In 2019, the average APTC covered 86% of premium for individuals who received them nationwide. The Medicare buy-in bills currently proposed would allow individuals to use the APTCs they would have received in the ACA marketplace toward the purchase of a Medicare buy-in plan. The specific details around how the subsidies would transfer have not been defined.

If APTCs were directly transferrable to the buy-in, there would be individuals in our case study who would be eligible for an APTC covering the entire Medicare buy-in premium. However, allowing subsidies to transfer directly from the individual market to the buy-in plan could lead to unusual rate relationships, where similarly situated individuals in lower-cost regions pay more for a buy-in plan than individuals in higher-cost regions, or younger individuals pay more for a buy-in plan than similarly situated older individuals. An example for two individuals at different ages who have the same income level and live in the same ACA rating area is shown in Figure 7.

The same situation happens for individuals who are the same age and have the same income level, but live in different ACA rating areas. If premium subsidies are directly transferrable to the buy-in, a person living in a higher-cost rating area will have a lower buy-in premium after subsidies than a person living in a lower-cost rating area. As we have noted previously, the impact of this may be mitigated if private MA-PD plans are allowed to establish multiple service areas within a larger region.

The moral of this story is that building a subsidy program around a Medicare buy-in plan would require careful consideration. Simply transferring subsidies from the individual market to the buy-in program would lead to unintended rate relationships that do not align with rate relationships in the individual market, introducing opportunities for selective behavior and rate instability.

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12 However, APTCs do not vary by age in states that do not allow age rating in the individual ACA market.


14 Note that this can also happen to a lesser degree in the current individual market for subsidy-eligible individuals who purchase a plan other than the second-lowest-premium silver plan. This is because the subsidy amount is fixed and the absolute difference in rates between ages and between ACA rating areas changes by plan (for example, the absolute difference between rates by age will be smaller than the difference in the calculated subsidy for plans with a lower premium than the second-lowest silver plan).
What are the potential implications of a buy-in plan on healthcare providers?

The Medicare buy-in proposals being contemplated today would require participating providers to accept Medicare fee levels for buy-in enrollees. Medicare reimbursement rates are generally lower than current reimbursement rates in the commercial group and individual markets, so providers would be facing a reduction in payment for beneficiaries who choose a buy-in plan instead of an individual market plan (on the other hand, they may see reductions in uncompensated care if individuals choose a buy-in plan over no plan at all).

We found in our case study that reimbursement rates in the individual market typically range from 50% to 100% higher than Medicare fee levels across the nation, although the differences vary significantly by region and are not limited to that range. For regions where commercial payment rates exceed Medicare, lowering reimbursement rates for the buy-in population translates to a reduction in revenue for providers and a reduction in premium for buy-in enrollees. Differences in provider reimbursement rates were the primary driver of the premium savings we observed under the buy-in plan.

In fact, the difference in premium disappears almost entirely if the provider payment rates in the ACA and Medicare buy-in markets are the same. Figure 8 shows how ACA rates would compare to the buy-in rate under various ACA reimbursement rate levels, ranging from 100% to 220% of Medicare. When priced at 100% of Medicare, the ACA rate for a 57-year-old (the median age of the eligible buy-in population) is similar to the buy-in rate.

Ultimately, in markets where commercial reimbursement rates are much higher than Medicare, providers could be faced with real losses in revenue under a buy-in scenario. The eligible population in our case study was limited to a relatively small fraction of the overall population, but it would grow significantly if eligibility were expanded to the employer group market (consistent with the current proposals). A portion of that lost revenue may be recovered naturally through reductions in uncompensated care or increases in service volume if the uninsured rate drops, but those sources alone are not likely to be enough in regions where commercial rates are high. In that case, providers may need to consider taking action to sustain current margins, which might mean increases in commercial reimbursement rates, changes in practice patterns, participation in risk-sharing arrangements, potential consolidation, or other means.
Conclusion

While our case study demonstrated favorable financial outcomes for many individuals who would become eligible for a buy-in plan, it also demonstrated the potential for premium rate increases in the individual ACA market.

One of the key challenges associated with introducing a buy-in program that relies on providers accepting Medicare fee levels is that providers would be faced with potentially significant reductions in revenue absent other changes. Savings under the buy-in would largely disappear if providers were not required to accept lower reimbursement rates than in the individual market.

A buy-in option has the potential to further fragment the already-fragmented individual health insurance markets and introduce selection opportunities that may be challenging or impossible to predict or control. Adding to this issue is the fact that the individual market is small and prone to instability already. Our case study demonstrated potential outcomes in one particular state, but each region is unique and outcomes will vary.

The reality is that the U.S. healthcare system is complex, with many interactions between markets and stakeholders. When evaluating the implications of healthcare system changes, it is critical to consider that preconceptions may not match reality. Stakeholders and policy makers will need to understand the actuarial implications and risks associated with new policy proposals, and actuaries are positioned to play an important role.