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By Joseph P. Newhouse, Mary Price, Jie Huang, J. Michael McWilliams, and John Hsu

**Steps To Reduce Favorable Risk Selection In Medicare Advantage Largely Succeeded, Boding Well For Health Insurance Exchanges**

**ABSTRACT** Within Medicare, the Medicare Advantage program has historically attracted better risks—healthier, lower-cost patients—than has traditional Medicare. The disproportionate enrollment of lower-cost patients and avoidance of higher-cost ones during the 1990s—known as favorable selection—resulted in Medicare’s spending more per beneficiary who enrolled in Medicare Advantage than if the enrollee had remained in traditional Medicare. We looked at two measures that can indicate whether favorable selection is taking place—predicted spending on beneficiaries and mortality—and studied whether policies that Medicare implemented in the past decade succeeded in reducing favorable selection in Medicare Advantage. We found that these policies—an improved risk adjustment formula and a prohibition on monthly disenrollment by beneficiaries—largely succeeded. Differences in predicted spending between those switching from traditional Medicare to Medicare Advantage relative to those who remained in traditional Medicare markedly narrowed, as did adjusted mortality rates. Because insurance exchanges set up under the Affordable Care Act will employ similar policies to combat risk selection, our results give reason for optimism about managing competition among health plans.

 Favorable selection has been a persistent problem in Part C of Medicare, now called Medicare Advantage (MA).1–11 Beneficiaries who cost less than average, after adjustment for certain demographic and clinical characteristics, disproportionately enrolled in Medicare Advantage, while those who cost more than average disproportionately remained in traditional Medicare.

Federal spending is higher when favorable selection occurs, because Medicare Advantage payments are tied to risk-adjusted spending for the average traditional or regular Medicare beneficiary in an area. If the method of risk adjustment inadequately accounts for differences in costs between Medicare Advantage and traditional enrollees, the government pays more for Medicare Advantage enrollees than if they had enrolled in traditional Medicare.

The effectiveness of risk adjustment is also a critical issue in future health insurance exchanges in the commercial market and for Medicare premium support proposals. The less effective risk adjustment is, the greater the incentive for competing insurers to select good risks, as they have historically done in individual and small-group markets.12

Indeed, the pervasiveness of risk selection and medical underwriting by insurers in individual and small-group markets is a principal motivation for the Affordable Care Act’s reforms in those markets. Assuming universal coverage, if some plans attract favorable risks after risk...
adjustment, other plans will necessarily have unfavorable risks and may withdraw from the market or raise premiums relative to benefits. Uneven allocation of risks across plans without effective risk adjustment could thus result in market instability, as people encounter the need to change plans—and potentially physicians and medications, because a new plan’s networks and formularies differ.

Medicare has taken several steps in recent years to reduce favorable selection in the Medicare Advantage program, and similar methods will be used in insurance exchanges. Determining how well these steps have succeeded is thus important both for Medicare and the commercial market.

**Selection And Risk Adjustment In Medicare Advantage**

Prior to 2000, the federal government risk-adjusted payments to Medicare Advantage plans only for enrollees’ demographic characteristics, primarily age and sex. However, this limited adjustment was insufficient to offset distortion stemming from favorable selection into Medicare Advantage plans. The Congressional Budget Office estimated that the government overpaid plans in the aggregate 8 percent. To reduce the overpayment, in 1997 Congress mandated that the risk adjustment mechanism account for Medicare Advantage enrollees’ health status.

In practice, improving the risk-adjustment mechanism meant adjusting government payment using diagnostic information on claims forms. Thus, in 2000 Medicare began to use inpatient diagnoses to adjust payment. Because outpatient diagnostic information did not affect reimbursement, it was considered unreliable. Using only inpatient diagnoses, however, created an incentive to hospitalize beneficiaries with conditions that could be treated more cheaply in outpatient settings. To limit this incentive, the payment rate incorporating inpatient diagnostic information received only 10 percent weight; the remaining 90 percent continued as before, ignoring diagnostic information.

In 2004 Medicare began a transition to a new risk-adjustment system that accounted for both inpatient and outpatient diagnostic information, called the Centers for Medicare and Medicaid Services Hierarchical Condition Categories (CMS-HCC) system. Payment rates determined by the new system were given 30 percent weight in 2004, 50 percent in 2005, 75 percent in 2006, and full weight in 2007.

The new system greatly improved the ability to predict spending. Specifically, it predicted 11 percent of variation in beneficiary spending, compared with just 1 percent for the prior system. Much variation, of course, is not predictable statistically, but at least 20–25 percent is.

To reduce favorable selection further, Medicare also imposed a partial enrollment lock-in in 2006, meaning that Medicare Advantage beneficiaries were no longer free to switch from Medicare Advantage to traditional Medicare monthly. By contrast, employment-based insurance customarily imposes an annual lock-in, where enrollees choose a plan for the upcoming year and remain in it for the entire year. The ability to opt out monthly facilitated favorable selection, because Medicare Advantage beneficiaries with a midyear health shock could move almost immediately to traditional Medicare, which offered a wider selection of physicians and hospitals.

Beginning in 2006, Medicare Advantage beneficiaries were locked into their plan for the second half of the year unless they moved from their plan’s service area. In 2007 they were locked in for the last nine months of the year. Beneficiaries dually eligible for Medicare and Medicaid were exempt from the lock-in.

Both the improved risk adjustment and the lock-in should have reduced selection, but other changes in the Medicare Advantage program could also have affected selection.

First, the average level of Medicare Advantage reimbursement steadily increased from 103 percent of traditional Medicare in 2003, the beginning of our study period, to 113 percent in 2008, the end of our period. That led Medicare Advantage enrollment to rise from 13 percent of all Medicare beneficiaries in 2003 to 22 percent in 2008.

Medicare Advantage enrollment has continued to increase since then, rising to 27 percent of beneficiaries by March 2012. The expansion in enrollment may have changed the distribution of health risks across both Medicare Advantage and traditional Medicare. We describe below our method of adjusting for the effect of expansion on selection.

Second, Congress altered the nature of Medicare Advantage plan offerings. Initially, plans were almost entirely health maintenance organizations with restricted physician networks and active medical management. In 1997 Medicare authorized private fee-for-service plans, which allowed beneficiaries to go to any provider or hospital that accepted Medicare patients and allowed the plan to pay the provider at traditional Medicare rates. The plans were prohibited from using medical management
strategies, such as gatekeepers for getting referrals or utilization review, typically employed by health maintenance organizations in Medicare Advantage.

Enrollment in these plans was minimal at first, but the combination of increased Medicare Advantage reimbursement along with private fee-for-service plans’ ability to pay providers at traditional Medicare rates led to additional benefits and less cost sharing for private fee-for-service enrollees. This in turn caused private fee-for-service enrollment to grow substantially.

Because the private fee-for-service plans had no network restrictions in 2003–08, plans may have attracted beneficiaries with a different mix of risks than health maintenance organizations attracted. (Network restrictions became a requirement for private fee-for-service plans as of 2011.) Starting in 2003 Medicare Advantage plans also could offer a preferred provider organization option, which could have attracted a different risk mix as well. For this reason we analyze each plan type separately.

Finally, in 2006 Medicare introduced Part D, which made drug coverage available to traditional Medicare beneficiaries and required Medicare Advantage plans to offer equivalent or better drug coverage. To keep a level playing field, Medicare increased its payment to Medicare Advantage enrollees’ plans by the amount actuarially equivalent to its subsidy to Part D plans in traditional Medicare.

Many Medicare Advantage plans had previously attracted beneficiaries by offering limited drug coverage. With the availability of drug coverage within traditional Medicare, some thought Medicare Advantage enrollees might switch to traditional Medicare. However, with the additional subsidy, drug coverage in Medicare Advantage was typically cheaper and more generous than in traditional Medicare. Because of the equal subsidy to both programs, we believe that Part D’s effect on Medicare Advantage enrollment decisions was probably small. Nonetheless, our estimates include any effects on selection of Part D’s introduction.

In this article we assess whether there was greater risk equalization between Medicare Advantage and traditional Medicare after this series of policy changes. In other words, we estimate whether favorable selection into the Medicare Advantage program declined.

Study Data And Methods
We compared average risk scores, which are proportional to a group’s predicted spending, for those who changed from Medicare Advantage to traditional Medicare or vice versa (“switchers”) with those who remained in traditional Medicare (“stayers”) in a given year. If predicted spending is less for those switching to Medicare Advantage than for those remaining in traditional Medicare, there is favorable selection—and, conversely, for those switching out of Medicare Advantage.

Switchers include those enrolled in Medicare Advantage on January 1 of the current year if they were in traditional Medicare the prior year and vice versa.

DATA SOURCES To compute risk scores, we used a 20 percent random sample of traditional Medicare claims from the period 2003–08; the Medicare Advantage analogue of these claims data is not publicly available. Because the diagnoses used in the CMS-HCC model are for the prior year, we show risk scores from the period 2004–08.

In our analysis of risk scores, we included beneficiaries age sixty-five or older on January 1 of a given year and whose original reason for Medicare entitlement was turning sixty-five. We excluded the institutionalized and beneficiaries eligible for Medicaid (so-called dual eligibles), few of whom were in Medicare Advantage in the time period we studied other than in Special Needs Plans. We did not study Special Needs Plans because their reimbursement differed and because they began in 2004 and so had no prior history of selection.

We used the 2007 version of the CMS-HCC model to calculate risk scores in each year. That model accounts for age, sex, and age-sex interactions, as well as the presence or absence of seventy conditions as recorded on claims from the past twelve months. For those switching into Medicare Advantage, these scores predict spending relative to the average traditional Medicare enrollee.

For those switching out of Medicare Advantage, we lacked diagnostic data for the prior year, so we calculated risk scores from diagnoses on traditional Medicare claims after the switch compared with those who were always in traditional Medicare. For this same group, we included only those who were enrolled in traditional Medicare for twelve subsequent months or who died. Thus, comparisons of switchers and stayers were unaffected by the period of claims available for HCC risk score determination. This effectively means that our sample for the analysis of risk scores was ages sixty-six and older.

We focused on the three largest types of Medicare Advantage plans: health maintenance organizations, private fee-for-service, and preferred provider organizations. The study was approved by the Harvard Medical School Committee on Human Studies and the CMS
Risk scores and profiles Because enrollment went up sharply in the years we studied, switchers in the later years potentially came from a different population and so could have had a different clinical risk profile than those in the earlier years. To account for this possibility, we controlled for Medicare Advantage penetration in the county of residence in each year. Thus, for counties with a given level of Medicare Advantage penetration, we asked how the difference in risk scores between switchers and stayers changed over time. If the new risk adjustment procedure and the lock-in were effective in addressing selection, this difference should have fallen.

In addition, our results show how varying penetration across counties affected risk scores, illuminating how enrollment expansion affected selection. The standard economic model of selection assumes that the worst risks are in traditional Medicare, the best risks are in Medicare Advantage, and those switching from traditional Medicare to Medicare Advantage are the best risks previously in traditional Medicare. Quantitatively, this model, which epidemiologists call the Will Rogers Effect (from Will Rogers’s quip that when the Okies left Oklahoma and moved to California, they raised the IQ in both places), predicts that counties with a higher Medicare Advantage penetration will have higher average risk scores in both Medicare Advantage and traditional Medicare.

Because we did not observe risk scores in Medicare Advantage, we could not test the Medicare Advantage prediction. However, in each year we tested the traditional Medicare prediction that HCC risk scores are higher in counties with greater penetration among both traditional Medicare stayers and switchers to Medicare Advantage.

We also estimated a county fixed-effects model, which shows the effect of greater penetration within a given county over time on risk scores. This model yielded similar results (which are discussed in more detail in the online Appendix). If Medicare Advantage beneficiaries moved to an area outside their plan service area, they would be forced to change plans and thus could exhibit a different pattern of selection, so we controlled for whether the beneficiary changed ZIP code of residence.

Mortality rates In addition to analyzing risk scores, we computed 2008 mortality rates for Medicare Advantage enrollees relative to traditional Medicare enrollees, adjusted for age, sex, and Medicaid status, all of which are predictive of mortality.

We compared these results with similar calculations done by the Medicare Payment Advisory Commission using 1998 data. If selection fell, differences in mortality rates, which favored Medicare Advantage in 1998, should have narrowed. We also disaggregated these rates among Medicare Advantage enrollees by length of Medicare Advantage enrollment.

Plan types Finally, we examined the within-year distribution of disenrollment from Medicare Advantage health maintenance organizations. Disenrollment from preferred provider organizations and private fee-for-service before 2006 was too small to yield meaningful pre- and post-lock-in comparisons. If the lock-in deterred switching because of a midyear health shock, the annual disenrollment rate should have fallen, and this fall should have been concentrated in lock-in months.

Limitations Our study has several limitations. We cannot determine how much favorable selection remains in Medicare Advantage because we could not calculate the amount of selection present in 2004. Nonetheless, the mortality analysis suggests that selection has declined among all Medicare Advantage enrollees relative to all traditional Medicare enrollees.

Moreover, once in Medicare Advantage, most enrollees tend to remain there; 97.5 percent of those in Medicare Advantage in 2007 remained in 2008 (Exhibit 1). Because Medicare Advantage mortality rates move toward traditional Medicare rates the longer an enrollee remains, any initial selection may regress toward the mean.

We cannot determine how much of the decline in selection is attributable to improved risk adjustment, how much to the lock-in, and how much to Part D. However, making this determination is not critical because it is the combined effect of these factors that matters. Also, risk adjustment, a lock-in, and drug coverage will all exist in health insurance exchanges.

Study results Enrollment rates Enrollment in Medicare Advantage grew 77 percent from 2003 to 2008, and disenrollment rates fell in each type of Medicare Advantage plan (Exhibit 1). Fewer than half of beneficiaries disenrolling from Medicare Advantage remained in traditional Medicare for twelve months or died. This implies that the majority of people who disenrolled from Medicare Advantage actually reenrolled in Medicare Advantage within a twelve-month period.

Risk scores and profiles In 2004, before the lock-in and as the CMS-HCC risk adjustment was being phased in, traditional Medicare
beneficiaries who switched to Medicare Advantage were better risks than those who stayed in traditional Medicare, while those disenrolling from Medicare Advantage were similar to those already enrolled in traditional Medicare (Exhibit 2). The average risk score at this time was around 1.1; thus, the −0.113 value for 2004 for traditional Medicare enrollees switching to Medicare Advantage means that those switching to Medicare Advantage were expected to cost 10 percent less than the average traditional Medicare beneficiary in the following year (0.113/1.1 = 0.103).

By 2008 favorable selection remained but had dropped by a factor of 3 overall—although less for those switching into health maintenance organizations and preferred provider organizations in Medicare Advantage. As another measure of the decrease, the 2003 difference in traditional Medicare costs between beneficiaries switching to Medicare Advantage for 2004 and those remaining in traditional Medicare for 2004 was $2,693, whereas the 2007 difference for those switching in 2008—after the full implementation of CMS-HCCs and the lock-in—had fallen to $1,093 (see the Appendix).24

Whereas the results for those switching to Medicare Advantage indicated decreased selection, differences in risk scores for those switching out of health maintenance organizations and preferred provider organizations in Medicare Advantage became increasingly positive (Exhibit 2). Thus, although the rate of disenrollment fell over time (Exhibit 1), those who did disenroll from Medicare Advantage were sicker than the average beneficiary who stayed in traditional Medicare.

Traditional Medicare stayers in counties with higher Medicare Advantage penetration in a given year had only slightly higher average risk scores than stayers in counties with less penetration—at most, 0.01 higher for each ten-percentage-point increase in Medicare Advantage penetration (Exhibit 3).

Risk scores among those switching to Medicare Advantage showed no consistent pattern with the Medicare Advantage penetration in their county. As penetration rose, scores among
Although less than in 1998; their adjusted mortality enrollees, however, continued to exhibit Medicare rate by 2008. New Medicare Advantage more, it was 99 percent of the traditional beneficiaries in Medicare Advantage five years or compared with 85 percent a decade earlier. For the mortality of those in traditional Medicare, Advantage (Exhibit 4).

Switchers rose marginally in two of the five years but fell in three of them. These mixed results across years were found for each type of Medicare Advantage plan (see the Appendix).24

Mortality rates Adjusted mortality rates were lower among Medicare Advantage beneficiaries than traditional Medicare beneficiaries in both 1998 and 2008, consistent with favorable selection. Nonetheless, the difference in rates moved toward equality over time, consistent with having a sicker group of beneficiaries remain in or be unable to switch out of Medicare Advantage (Exhibit 4).

Specifically, mortality among beneficiaries in Medicare Advantage in 2008 was 93 percent of the mortality of those in traditional Medicare, compared with 85 percent a decade earlier. For beneficiaries in Medicare Advantage five years or more, it was 99 percent of the traditional Medicare rate by 2008. New Medicare Advantage enrollees, however, continued to exhibit substantial favorable selection on this measure, although less than in 1998; their adjusted mortality was 87 percent of the traditional Medicare rate in 2008, compared with 79 percent earlier.

Enrollment rates Annual disenrollment rates fell from 2003 to 2008 (Exhibit 1). This fall was concentrated in the months in which the lock-in was effective. In 2004 and 2005, before the lock-in, disenrollment during the months in which the lock-in would later apply was 5–7 percent, whereas in 2006 and later it was 3–4 percent. More details are available in the online Appendix.24

### EXHIBIT 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Difference (switch–stay)</th>
<th>95% CI</th>
<th>Difference (switch–stay)</th>
<th>95% CI</th>
<th>Difference (switch–stay)</th>
<th>95% CI</th>
<th>Difference (switch–stay)</th>
<th>95% CI</th>
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<tr>
<td>2004</td>
<td>−0.0113</td>
<td>−0.120, −0.017</td>
<td>−0.152</td>
<td>−0.169, −0.135</td>
<td>−0.109</td>
<td>−0.116, −0.102</td>
<td>−0.103</td>
<td>−0.171, −0.035</td>
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<tr>
<td>2005</td>
<td>−0.088</td>
<td>−0.093, −0.083</td>
<td>−0.127</td>
<td>−0.136, −0.118</td>
<td>−0.076</td>
<td>−0.082, −0.070</td>
<td>−0.046</td>
<td>−0.069, −0.024</td>
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<tr>
<td>2006</td>
<td>−0.100</td>
<td>−0.104, −0.097</td>
<td>−0.118</td>
<td>−0.123, −0.113</td>
<td>−0.081</td>
<td>−0.086, −0.075</td>
<td>−0.095</td>
<td>−0.103, −0.087</td>
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<tr>
<td>2007</td>
<td>−0.050</td>
<td>−0.054, −0.047</td>
<td>−0.042</td>
<td>−0.047, −0.038</td>
<td>−0.096</td>
<td>−0.104, −0.088</td>
<td>−0.018</td>
<td>−0.029, −0.007</td>
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<tr>
<td>2008</td>
<td>−0.037</td>
<td>−0.041, −0.033</td>
<td>−0.019</td>
<td>−0.025, −0.014</td>
<td>−0.061</td>
<td>−0.069, −0.054</td>
<td>−0.053</td>
<td>−0.062, −0.044</td>
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</tbody>
</table>

### EXHIBIT 3

<table>
<thead>
<tr>
<th>Year</th>
<th>Stay in traditional Medicare</th>
<th>Difference for 10-percentage-point increase in prior-year MA penetration</th>
<th>95% CI</th>
<th>Switch to Medicare Advantage</th>
<th>Difference for 10-percentage-point increase in prior-year MA penetration</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>0.0101</td>
<td>0.0095, 0.0107</td>
<td>−0.0088</td>
<td>−0.0132, −0.0044</td>
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<tr>
<td>2005</td>
<td>0.0091</td>
<td>0.0084, 0.0097</td>
<td>0.0048</td>
<td>0.0012, 0.0085</td>
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<td></td>
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<tr>
<td>2006</td>
<td>0.0056</td>
<td>0.0049, 0.0065</td>
<td>0.0167</td>
<td>0.0142, 0.0192</td>
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</tr>
<tr>
<td>2007</td>
<td>0.0028</td>
<td>0.0021, 0.0035</td>
<td>−0.0196</td>
<td>−0.0223, −0.0168</td>
<td></td>
<td></td>
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<tr>
<td>2008</td>
<td>0.0035</td>
<td>0.0028, 0.0042</td>
<td>−0.0087</td>
<td>−0.0117, −0.0057</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ calculations from Medicare Claims Files. Notes: The equations on which this exhibit is based are in the online Appendix (see Note 24 in text). NOTE CI is confidence interval.
Discussion

Several pieces of evidence suggest that the steps Medicare took to address favorable selection in Medicare Advantage greatly reduced it. We focused on the improved risk adjustment to Medicare Advantage plan payments and the reduced ability to leave Medicare Advantage monthly.

To estimate how much these actions affected selection, we estimated how the difference in expected spending between those joining Medicare Advantage plans from traditional Medicare and those remaining in traditional Medicare changed over time. Smaller differences indicate less selection.

The difference declined by a factor of 3 overall; in other words, favorable selection markedly declined, although not to zero. The decline occurred in all three major types of Medicare Advantage plans but was less for health maintenance organization plans. Because this result holds Medicare Advantage penetration in the county constant, it is not attributable to the large increase in Medicare Advantage enrollment in these years.

Risk and Selection Effects

The decline in favorable selection among beneficiaries enrolling in Medicare Advantage was somewhat offset by increased favorable selection among those who disenrolled. Although fewer disenrolled, those who did were increasingly sick, which implies that relatively better risks remained behind in Medicare Advantage. The net effect on selection is probably modest, however, because in 2006–08 about five times as many beneficiaries switched into Medicare Advantage each year as switched out (Exhibit 1).

Moreover, more than two-thirds of those who switched out of Medicare Advantage switched back within a year. This points toward transient disenrollment to receive a medical procedure without being subject to restrictions from Medicare Advantage plans that employ utilization management or limit provider networks. Although such behavior is certainly consistent with selection, the ability to jump into and out of Medicare Advantage has now been further reduced. As of 2011, Medicare Advantage enrollees can leave only in the first six weeks of the year (unless moving from a plan’s service area).
The Will Rogers Effect assumes that the worst risks start in traditional Medicare and predicts that those switching to Medicare Advantage will be the best risks among those in traditional Medicare. As a result, it predicts that increases in Medicare Advantage penetration will raise risk scores in both forms of Medicare.\textsuperscript{23}

The data at best weakly support this hypothesis. Those remaining in traditional Medicare in counties with higher Medicare Advantage penetration do have higher risk scores and hence higher predicted spending than their counterparts in counties with less penetration, as the hypothesis predicts, but by only a small amount. Other factors being equal, a county with a ten-percentage-point higher Medicare Advantage penetration rate has less than 1 percent greater spending among those remaining in traditional Medicare.

Moreover, those switching to Medicare Advantage in counties with greater penetration are as likely to be worse-than-average risks in traditional Medicare as they are to be better risks, contrary to the hypothesis. In short, switching appears to be a considerably more random process than the standard model of selection indicates.

**Mortality Rate Changes** Differences in adjusted mortality rates between traditional Medicare and Medicare Advantage beneficiaries narrowed between 1998 and 2008 by a factor of 2. This narrowing indicates an increasingly similar mix of risks. Among Medicare Advantage enrollees of five years or more, adjusted mortality rates were almost equal to those of traditional Medicare enrollees.

**Disenrollment** The proportion of disenrollment occurring in the lock-in months fell by about half, and annual disenrollment rates decreased for all Medicare Advantage plan types (health maintenance organizations, preferred provider organizations, and private fee-for-service plans). Thus, the reduction in disenrollment during the lock-in months did not simply shift disenrollment forward in the year.

**Implications for Health Insurance Exchanges** Methods similar to Medicare’s will be used to combat selection in health insurance exchanges for the population under age sixty-five. In that population, the stakes are arguably higher than in Medicare because traditional Medicare serves as a safety-net plan for Medicare beneficiaries—that is, a plan that is always there. There is no such plan in commercial markets.

Whereas unfavorable selection against traditional Medicare simply increases federal spending, unfavorable selection against a commercial plan could cause it to withdraw from the market.

The process could repeat itself as a former plan’s unfavorable risks redistribute themselves among remaining plans. Although risk adjustment among competing plans can never be perfect, our results give reason for optimism that selection in exchanges can be kept at manageable levels.

**Other Medicare Policy Implications** Our findings do not translate into a measure of federal overpayment to Medicare Advantage plans because selection is only one factor affecting federal cost. Throughout the 2003–08 period, a number of policies raised the cost of Medicare Advantage relative to traditional Medicare, including congressionally set reimbursement floors.\textsuperscript{11} Although the Affordable Care Act changed the specifics of those policies, it left adjusted Medicare Advantage reimbursement above that of traditional Medicare.

Medicare Advantage plans have incentives to code diagnoses more intensively than traditional Medicare does. This is because plan reimbursement in Medicare Advantage rises with additional diagnoses, whereas physician reimbursement in traditional Medicare does not. This differential incentive should not affect our main results since all of the beneficiaries in our sample were in traditional Medicare when their diagnoses were recorded.

To the extent that Medicare Advantage disenrollees carry their diagnoses into traditional Medicare, however, this would cause Medicare Advantage disenrollees to appear sicker than beneficiaries already in traditional Medicare. This is consistent with the increasing trend in risk scores among disenrollees (Exhibit 3).

In other words, any bias from coding effects works against our finding of a decline in favorable selection. Although coding is more aggressive in some areas than in others, the geographic distribution of those switching to Medicare Advantage is relatively stable, so geographic differences in coding practices do not affect our conclusions.\textsuperscript{24,26}

**Comparison With Other Studies** Using data from the Medicare Current Beneficiary Survey, Jason Brown and colleagues reached a different conclusion than ours: namely, that favorable selection into Medicare Advantage plans actually increased in 2003–07 compared with 1995–2002.\textsuperscript{27} Indeed, they found that the introduction of CMS-HCCs and the lock-in period actually cost Medicare money because plans were more adept at attracting the healthiest risks within CMS-HCCs than they were at attracting the healthiest within age-sex groups prior to CMS-HCC adjustment.

We, however, have a much larger sample and one additional year with which to measure...
effects on selection. Using the methods of Brown and colleagues’ study on our much larger sample, we reached the opposite conclusion.24

In particular, as the CMS-HCC system phased in during 2004–07, it would have been increasingly in a plan’s financial interest to select good risks within each CMS-HCC—and any learning by plans would simply reinforce such an effect. The data, however, are not consistent with this expectation because, controlling for risk score, they show no trend in prior spending in traditional Medicare by those switching to Medicare Advantage over the period we studied.

Another demonstration of the inconsistency in the data is that in 2004, not controlling for risk score because the transition to the HCC system had just started, the average Medicare Advantage switcher spent $2,693 less than the system had just started, the average Medicare risk score because the transition to the CMS-HCC system was complete, that figure had fallen by more than a factor of 4, to $585.24

**Conclusion**

In sum, favorable selection in the Medicare Advantage program in the 1990s meant that Medicare spent more per beneficiary who enrolled in Medicare Advantage than if the enrollee had remained in traditional Medicare. In the mid-2000s Medicare took a number of actions to mitigate selection, including introducing diagnosis-based risk adjustment, a lock-in period, and an expanded array of plan types. These actions were associated with reduced favorable selection.

Health insurance exchanges among the non-elderly population will use similar measures to combat selection. Whether they will be as effective in this population is an open but critical question. Based on our analysis of how Medicare’s policies have succeeded in reducing favorable selection in Medicare Advantage, we are optimistic that similar steps in the exchanges will succeed. ■

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**NOTES**

20 42 CFR 422.216(f).
23 Feinstein AR, Sosin DM, Wells CK. The Will Rogers phenomenon: stage migration and new diagnostic techniques as a source of misleading
In this month’s Health Affairs, Joseph Newhouse and coauthors report on their study of whether steps taken during the mid-2000s to reduce favorable selection in the Medicare Advantage program succeeded. Examining predicted spending on beneficiaries and mortality, they found that the new policies—an improved risk-adjustment formula and prohibiting Medicare Advantage enrollees from disenrolling monthly—were largely effective. The authors express optimism that the insurance exchanges set up under the Affordable Care Act will be equally effective in employing similar policies to combat risk selection.

Newhouse is the John D. MacArthur Professor of Health Policy and Management at Harvard University. Newhouse spent the first twenty years of his career at the RAND Corporation, where he designed and directed the RAND Health Insurance Experiment, which studied the consequences of different ways of financing medical services. He later served as the head of the RAND Economics Department. He was the founding editor of the Journal of Health Economics, which he then edited for thirty years, and is a member of the editorial board of the New England Journal of Medicine.

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