

**The Health Plan Choices of Employees and Retirees in a Managed Competition
Setting: Evidence from the University of California**

Testimony, Senate Finance Committee
Submitted by

Thomas C. Buchmueller
Associate Professor
Graduate School of Management
University of California, Irvine

April 4, 2001

This testimony is based on research that was supported by grant 030561 from the Robert Wood Johnson Foundation's Changes in Health Care Financing and Organizations program. Some of that research was done in collaboration with Paul J. Feldstein and Bruce A. Strombom.

Introduction

Thank you, Mr. Chairman and members of the committee, for the opportunity to testify about the role of consumer choice and competition in Medicare reform. My name is Thomas Buchmueller. I teach economics at the Graduate School of Management at the University of California, Irvine. My testimony today will focus on the recent experiences of the employee and retiree health benefits program of the University of California (UC).¹

The UC program is based on the principles of “managed competition” and is quite similar to competitive models proposed for Medicare. In the mid-1990s, the UC adopted a fixed dollar premium contribution policy, whereby the amount it pays for employee health insurance coverage is set at the premium charged by the least costly plan in the program. Because this change caused employee contributions to increase for some UC plans but not others, it created a good natural experiment for testing the price-sensitivity of consumers and the competitive response of health plans in a managed competition setting. Because UC retirees are offered the same choice of health plans and faced similar price changes as active employees, it is possible to compare the price-sensitivity of retirees and active employees. This comparison is important because while there are reasons to suspect Medicare beneficiaries to be less price-sensitive than non-elderly workers, arguments about how a managed competition style Medicare program would work in practice are typically made with reference to employer-sponsored programs covering non-elderly workers.

Results from the UC active employee population show that the competitive approach can be effective in controlling health spending. UC employees have proven to be quite sensitive to out-of-pocket premiums when choosing their health plans, and this has led to vigorous price competition among health plans. In the three years immediately after the UC altered its contribution policy to emphasize price differences among competing health plans, per-employee spending on health benefits fell by 26% in real terms.

However, there are two important caveats to this success story. First, UC retirees were much less price sensitive than active employees in the UC program and workers covered in similar programs elsewhere. This raises questions about how well results from working-aged populations generalize to Medicare. The second caveat is that the shift of

¹ My research using data from the UC program is summarized in several published articles (Buchmueller and Feldstein 1996, 1997; Buchmueller 1998, 2000; Strombom, Buchmueller and Feldstein 2001).

enrollment from higher-priced to lower-priced health plans pushed the single fee-for-service (FFS) plan on the UC menu into an “adverse selection death spiral.” Within three years, the FFS plan’s costs and premiums had skyrocketed and its enrollment of active employees was close to zero. This result shows that without effective risk adjustment, plans that are more attractive to higher risk individuals are at a significant disadvantage and may not be viable in a competitive market.

The University of California Health Benefits Program

The UC offers a choice of health insurance plans to roughly 80,000 employees at 9 campuses located throughout the state and 3 national laboratories, including the Los Alamos National Lab in New Mexico. In addition, a choice of health plans is offered to roughly 30,000 retirees, of whom about half are covered by Medicare.

Employees and retirees choose their health plans during an annual open enrollment period that takes place in November. My analysis focuses on open enrollment decisions made between 1993 and 1998. During that period, the choice of health plans varied somewhat across locations, but at all locations included several HMOs. In nearly every location there were also two other plans: Prudential High Option, a traditional FFS plan, and UC Care, which was designed as a preferred provider organization (PPO) through 1995 and as a point-of-service (POS) plan thereafter. Prudential High Option offered employees the greatest freedom to choose their own providers, including the ability to self-refer to specialists. UC Care fell between the HMOs and Prudential in this respect, offering greater freedom than the HMOs, but less than Prudential. (At the Los Alamos NM location, there was a different FFS plan with a similar design as Prudential, but no PPO/POS option.)

Retirees face the same menu of plans as active employees and the benefits provided by the HMOs are identical for the two groups. For retirees with Medicare, Prudential High Option provides Medigap coverage with a coordination-of-benefits design. The plan covers Medicare deductibles and coinsurance, leaving retirees with essentially no out-of-pocket costs for Medicare-covered services. Prudential’s drug benefit has a \$50 annual deductible and a 20 percent coinsurance rate. The coverage under the UC Care Medigap plan is significantly less generous than that of Prudential High Option.

UC employees are required to pay the difference between the premium charged by their chosen plan and the UC’s premium contribution. Prior to 1994, the UC’s contribution

was based on a weighted average of the premiums charged by the four plans with the highest enrollment of UC employees. Because the “big four” included Prudential High Option, the most costly plan on the UC menu, the UC contribution exceeded the premiums of all the HMOs. As a result, all HMOs were available to employees for a zero contribution, which gave them no incentive to compete with each other on the basis of price. Prudential High Option required a monthly premium contribution, but that amount was less than the difference in gross premiums between it and the managed care plans. The way that the UC contribution was pulled up by Prudential’s high premium is similar to the way Medicare payments to HMOs are tied to costs in the FFS sector.

In 1994, the UC altered its contribution policy, setting the amount it paid equal to the premium charged by the lowest cost plan available statewide. The adoption of this “fixed dollar” contribution policy caused employee contributions to increase for Prudential High Option as well as for several of the HMOs. Overall, roughly one-third of UC employees faced a price increase between 1993 and 1994. For the HMOs, the price increases ranged from \$4 to \$27, depending on the plan and type of coverage (i.e., single, two-party, family). Monthly premium contributions for Prudential High Option increased by between \$52 (for single coverage) and \$88 (for family coverage). Contributions required for the FFS plan in New Mexico increased by even more. This policy change created a good natural experiment for testing the price-sensitivity of employees in a managed competition setting. The effect of price on health insurance decisions can be inferred by comparing the rate of plan switching by these employees to the rate for employees whose plans did not change in price. Since there were no other significant changes occurring at this time, this comparison provides a “clean” estimate of the effect of price on health insurance choice decisions.

The UC contributes the same amount for retirees’ coverage as it does for active employees. For retirees with Medicare, the premiums charged by the plans are substantially below active employee premiums because UC coverage supplements Medicare. The UC allows retirees with Medicare to apply the difference between the UC contribution and the premium for their chosen plan to their Part B premium. After the change in the UC’s contribution policy, the same plans that became more expensive for active employees became more expensive for retirees with Medicare. (That is, in 1994 retirees in some plans were required to pay part of their Part B premium.) Thus, it is possible to investigate the effect of price on the health insurance decisions made by UC retirees and to compare their behavior to that of active employees.

The Effect of Price on Switching Among Health Plans

The price increases caused by the change in the UC's premium contribution set off significant shifts in enrollment. Thirty percent of the employees enrolled in HMOs that increased in price between 1993 and 1994 switched to less costly plans. Half of the employees who had been enrolled in Prudential High Option also switched plans in response to the increase in the price of that plan. In contrast, only 5% of employees in plans that were available for a zero contribution in both 1993 and 1994 switched plans during open enrollment.

The open enrollment results for UC retirees with Medicare reveal a lower propensity to switch plans in general and a lower sensitivity to price. The contrast between active employees and is illustrated in Figure 1, which reports for each group the effect of price changes on the probability of switching plans.² When premiums are constant from one year to the next, 1.4 percent of retirees and 5 percent of active employees will switch plans. For retirees, increasing premiums by \$20 per month raises the switching rate to 3.4 percent. While this effect is statistically significant, it is much smaller than the corresponding effect for active employees for whom a \$20 premium increase results in a switching rate of 34 percent—ten times higher than the rate for retirees. Relative to the baseline rates, a price increase of \$20 results in a 240 percent increase in plan switching for retirees ($3.4/1.4 = 2.42$) and nearly a 7-fold increase for active employees ($34/5 = 6.8$).

Additional estimates of the effect of price on health plan choices can be obtained by using more years of data from the UC program. Between 1994 and 1998, the premium contribution for the Prudential Medigap plan increased by roughly 25 percent per year. The plan's market share fell slightly over this period, declining by 1.3 percentage points for every \$10 increase in out-of-pocket premiums. In contrast, an analysis based on active UC employees for the same time period indicates that a price increase of \$10 would lead to a 6-percentage point decline in market share. Estimated price effects from several recent studies using data on active employees in other managed competition programs are similar

² The data in the figure represent the results from multivariate regression models, and thus represent the effect of price controlling for other factors, such as age, gender, salary and location. To maximize comparability the analysis reported in Figure 1 is limited to individuals enrolled in HMOs. When the non-HMO plans are added, the difference between active employees and retirees with Medicare is even more pronounced.

to those for active UC employees and much larger than the effects found for the UC retirees (Dowd and Feldman 1994/95; Cutler and Reber 1998; Royalty and Solomon 1999).

The Effect of Plan Switching on Risk Selection Among Plans

An important concern regarding health insurance markets where choices are made at the individual level is the potential for adverse risk selection. In the extreme, plans that are particularly attractive to higher cost individuals may suffer an “adverse selection death spiral.” A death spiral occurs when premium increases not only reduce a plan’s market share but also cause its risk pool to deteriorate, as lower-cost consumers are more likely than higher-cost consumers to switch to less expensive plans. The deterioration of the risk pool requires the plan to raise premiums to cover its now-higher costs, which in turn leads to a further exodus of relatively low-cost consumers, and so on. In the extreme, adverse selection can drive certain plans from the market entirely.

This is essentially the scenario that occurred in the UC program. In response to the change in the UC’s contribution policy, participating HMOs cut their premiums to compete for market share. This caused the premium contribution for Prudential High Option to increase despite the fact that the total premium for the plan remained constant. Because the Prudential members who switched out of the plan were younger and healthier than those who remained, the plan ultimately had to increase premiums. Doing so while HMO premiums were continuing to fall worsened Prudential’s competitive situation. Between 1993 and 1995, Prudential’s single employee contribution more than doubled—from \$62 to \$134—and its enrollment fell by 61 percent. By 1998, active employees wishing to enroll in Prudential High Option were required to pay over \$700 per month and the plan covered roughly one-tenth of one percent of all UC employees. The plan was subsequently removed from the menu.

This result is not unique to the UC, but has been replicated in several other health benefits programs where less restrictive plans compete directly with HMOs and plan choices are made by individuals. The main implication for Medicare reform is that if a restructuring of the program does increase the elasticity of demand and induce greater price competition, traditional FFS Medicare is likely to experience even more adverse selection than it does under the current program. Without effective risk adjustment or an explicit policy of holding FFS Medicare harmless, there is a real risk that that option could be driven from the market.

This would clearly be a major problem, given that the vast majority of beneficiaries are covered by traditional FFS Medicare.

Because UC retirees were so much less price sensitive than active employees, the Prudential Medigap plan did not suffer the same fate as the Prudential plan for active employees. From 1993 to 1996, total premiums for the plan actually fell, though because the UC contribution amount fell even more, the out-of-pocket cost to retirees increased. Gross premiums and premium contributions increased from 1996 to 1998 and, as noted, the Prudential Medigap plan suffered a slight decline in market share as a result. However, the risk pool remained fairly constant. In 1993 the average age of retirees in the Prudential Medigap plan was 5 percent higher than the average age of all UC retirees with Medicare. By 1998, retirees in the Prudential plan were 7 percent older.

How Representative Are UC Retirees?

The UC health benefits program resembles the competitive approach that has been proposed for Medicare. However, in considering what lessons the UC experience has to offer, it is important to keep in mind several ways in which UC retirees are not representative of the entire Medicare population.

First, it is important to note that all UC locations are in mature managed care markets, with some of the highest rates of HMO penetration in the country. One obvious implication is that results from the UC program offer no insights concerning how the managed competition model might be implemented in rural areas where there is not sufficient population density to support multiple managed care organizations.

A more subtle point is that the high rate of HMO penetration in the UC program may help to explain the apparent insensitivity to price among UC retirees. It may be that when the cost of FFS Medigap coverage began to rise, the UC retirees who would be most responsive to price changes were already in HMOs, and the ones with FFS coverage were the ones with the strongest aversion to managed care. In markets where there is some managed care presence but the market is not nearly as saturated, there may be a greater percentage of beneficiaries who would switch from traditional Medicare to an HMO in response to a difference in out-of-pocket costs. Indeed, variation within the UC program offers some suggestion of this. In 1993, HMO penetration among retirees was significantly lower in the UC's one New Mexico location than in any of its California sites. When relative

prices changed between 1993 and 1994, retirees in New Mexico showed a greater willingness to switch to less costly plans.

It is also important to keep in mind that even after the cost of the FFS Medigap plan increased, it offered comprehensive coverage at a reasonable price. In 1998, the cost of the plan for a single individual, including the person's Part B premium, was \$87 per month. Considering that the UC has a fairly generous retirement program, it is unlikely that health insurance premiums represented a major burden for many UC retirees. Less affluent beneficiaries are likely to be more sensitive to differences in premiums charged by different plans in a competitive Medicare program.

In addition to these factors that may cause UC retirees to have a less elastic demand than Medicare beneficiaries more generally, there are some features of the UC program that are likely to make the demand for health insurance more elastic. One is that all participating HMOs are required to offer a standard set of benefits, which means that employees and retirees can make clear "apples-to-apples" comparisons. In addition, the plans competing within the UC program have provider panels that were virtually identical in the areas around many UC locations. This further makes health insurance like a commodity. If, in a reformed Medicare program, there were greater differentiation among competing plans, either in terms of benefits or covered providers, the enrollment decisions of beneficiaries would likely be based less on price and more on other differentiating factors.

Summary and Conclusions

The health benefits program of the University of California is similar in many important ways to competitive models proposed for Medicare. The recent experience of the UC program provides support for the argument that this approach can effectively harness the incentives of competitive markets to promote economic efficiency. The decision to restructure the premium contribution policy to emphasize price differences among competing health plans resulted in a considerable one-time savings to the University and established a more competitive environment in which plans that raise premiums face a significant risk of losing a large share of their enrollment.

However, there are two important caveats to this success story. The first is that UC retirees were much less price sensitive than active UC employees and employees in other similar employer-sponsored programs. In general, the more price-sensitive consumers are,

the less will firms be able to increase prices above marginal cost. If Medicare beneficiaries in general are less price-sensitive than younger consumers, health plans will face less pressure to compete on price in Medicare than in other markets. Until more research is available on the price-sensitivity of Medicare beneficiaries, policy analysts should be cautious in extrapolating from the behavior of younger, healthier consumers.

The second caveat is that one by-product of vigorous price competition among HMOs in the UC program was that the single FFS option on the menu suffered serious and fatal adverse selection. As a result, there is currently no option for UC employees who would prefer a plan that places minimal restrictions on their choice of providers. This result is not unique to the UC, but is common in settings where health plan choices are made at the individual level. If Medicare beneficiaries in general are more like UC retirees, biased risk selection is somewhat less of a concern. However, if restructuring Medicare does lead to increased competition on the basis of price, there is a significant potential that plans that are more attractive to higher-risk beneficiaries—in particular, the traditional FFS option—will experience adverse risk selection and may be driven from the market.

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Figure 1
The Effect of Price Changes on the Probability of Switching Health Plans:
Regression Results for UC Employees and Retirees, 1993-94

