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Patients At Risk: Health Reform And Risk Adjustment

by Joseph P. Newhouse

Abstract: The Clinton proposal recognizes the need for successful risk adjustment and calls for the National Health Board to promulgate a risk adjustment formula by 1 April 1995. Unfortunately, risk adjustment technology is primitive; using observable characteristics such as age only slightly ameliorates the flawed incentives of not adjusting at all. Without major improvements in risk adjustment technology we face a trade-off between giving plans an incentive to select good risks and an incentive to produce at lowest cost. Pure capitation maximizes both incentives; pure fee-for-service minimizes both. I suggest experimentation with paying plans partly on the basis of risk-adjusted capitation and partly on the basis of a fee schedule reflecting actual use (partial capitation). In the draft Clinton plan, the option given to alliances not to offer plans priced above 120 percent of the weighted average premium appears to assume better risk adjustment ability than is now possible. This option should be relaxed or abandoned.

Virtually all current health reform proposals, including President Bill Clinton’s Health Security Act, envision a world of competing health plans that receive a fixed premium per person. The premium could vary according to an enrollee’s personal or family characteristics. Characteristics such as age that cause the premium to vary are termed risk adjusters. Thus, if premiums are risk-adjusted, plans might be paid more for enrolling an older person than for enrolling a younger person.¹

Adequate risk adjustment is likely to be critical to the success of the Clinton plan (see Section 1541 of the Health Security Act). Most other major reform proposals also include language about risk adjustment.² Indeed, the inability to risk-adjust in a satisfactory fashion lies behind a number of current problems, such as preexisting condition exclusions and redlining in the insurance market for small businesses and the self-employed. Thus, the following comments are to be construed not as a negative comment on the president’s proposal but rather as a “heads-up” that fully prospective risk adjustment—the usual meaning—is likely to jeopardize goals of access, choice, and cost savings no matter what proposal is enacted. To preview my bottom line, I conclude that we should probably abandon the notion of fully prospective risk adjustment.

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Risk adjustment and selection. The rationale for risk adjustment is not complicated. With no adjustment, health plans receive the same payment for people whose expected costs are very different. To understand the problem, consider shoppers in a supermarket, pushing their carts down aisles. As they pass by breakfast cereals and soft drinks, they pause briefly to put a box or a six-pack in their carts and then move smartly along. Most, however, slow down when they reach the produce section. There they pick up the apples, bananas, and tomatoes and inspect them, trying to avoid the bruised, overripe, or possibly too-green fruit. At the end of the day it is precisely the damaged produce that is left on the produce stand.

The explanation for this behavior is straightforward. To shoppers a box of Cheerios or a six-pack of Coca-Cola is like any other; there is one price for a homogeneous product. In the case of fruit and vegetables, however, there is one price for a heterogeneous product; one pays the same amount per pound for a bruised apple as for a nonbruised apple.

Health plans, if they are paid the same amount per person, have incentives that are identical to those of shoppers in the produce section. They have a financial incentive not to enroll—or not to keep as enrollees—"bad apples," persons or families whose expected costs exceed what plans are paid to treat them. On the other side of the coin, health plans have a financial incentive to compete in wasteful ways to attract good risks. Even if for ethical reasons plans would prefer not to act on such incentives, they may feel obliged to because they believe that others will. And if the other plans do not, there will be profitable opportunities for entry by new plans, so the situation is unstable. Different mixes of health risks also can arise among purely passive plans because plans with disparate characteristics may differentially appeal to persons whose expected costs vary. Proponents of managed competition have long recognized this problem; it is a principal reason why we need to manage the competition.

In this essay I address two questions: Is risk selection just a theoretical problem, or is there evidence that it is likely to be a serious problem in practice? If it is likely to be a serious problem, what can be done about it?

Evidence On The Importance Of Risk Selection

Blue Cross and commercial insurance. One of the best-known historical examples of risk selection was the entry by commercial insurers into health insurance after World War II. Blue Cross was established in the 1930s because life, property, and casualty insurers did not offer health insurance, and it initially sold insurance at a community rate (the same price for all). Commercial insurers, observing that all firms did not have employees with the same expected costs, entered the market, offering firms
with better risks a lower premium (experience rating). Not surprisingly, the commercial carriers succeeded in attracting business; as a result, Blue Cross was left with disproportionately bad risks, which meant that their community-rated premiums had to increase. This in turn created further opportunities for the commercial industry to enroll those firms whose costs had been just a little above the prior community rate and who thus had stayed with Blue Cross initially. Ultimately, Blue Cross was forced to abandon community rating in the large-group market and began to experience.

**The Federal Employees Health Benefits Plan (FEHBP).** Federal employees have had a choice of plans for many years, including high- and low-option fee-for-service plans. Selection bias or disproportionate enrollment of bad risks in the high-option plan has been substantial. James Price and James Mays estimated that selection bias within the FEHBP in 1985 had raised the Blue Cross high-option family premium 33 percent and had lowered the low-option premium 21 percent. Thus, selection had created an estimated 68 percent spread in the premiums: $1.68 = (1 + 0.33)/(1 – 0.21)$. Pete Welch showed that subsequent behavior from 1985 to 1988 was consistent with a death spiral; premiums in the high-option plan increased relatively more than in the low-option plan, and in just three years its market share fell by almost half.

**The elderly in HMOs.** Health maintenance organizations (HMOs) historically have had limited cost sharing but also have had limited access to specialists and hospitals. Although the limitation on cost sharing would appeal to those with high expected spending, the limited access to specialists might not. Thus, it is not obvious a priori in which direction the selection might operate. The data, however, especially those from the Medicare program, suggest that HMOs tend to attract good risks.

An early study was that of Paul Eggers, who examined use of the hospital by two groups of elderly Medicare enrollees, one that did and one that did not choose to join an HMO. Eggers measured hospital use in the period immediately preceding the time of the choice, when both groups were enrolled in the fee-for-service system. His data showed very large differences in hospital use between the two groups.

This might be dismissed as one idiosyncratic instance of selection, but a study of ninety-eight HMOs by Jerrold Hill and Randall Brown, using a similar method, found remarkably similar results. Hill and Brown drew a random sample of just over 100,000 elderly Medicare enrollees who accepted the government’s offer to enroll in one of the HMOs and a similar-size control group from the same market areas who chose instead to remain in traditional, fee-for-service Medicare. They made three striking comparisons between the two groups, adjusting all comparisons for differences between the two groups in age, gender, institutional status, and welfare
status, the adjusters Medicare uses in its risk adjustment formula.

In all but six of the plans the HMO enrollees used fewer Medicare-covered services in the period before they joined the HMO, compared with those in the same market area who stayed in fee-for-service care. Over all ninety-eight plans the HMO enrollees, when they were enrolled in the fee-for-service system, cost 23 percent less than the nonenrollees.

Hill and Brown examined a second measure of the risk mix among HMO and non-HMO enrollees: the rate of hospitalization for conditions that were relatively nondiscretionary and known from other research to predict future expenditure. As above, they examined use in the period when both groups were in the fee-for-service system. The results strongly confirmed the inference from the data on prior reimbursement; on average, there were 25 percent fewer such hospitalizations among HMO enrollees in the period before enrollment, and in only five of the ninety-eight HMOs was there a higher rate of predictive hospitalizations in the preenrollment period.

Hill and Brown examined one other measure: mortality adjusted for demographic characteristics in the postenrollment period among enrollees and nonenrollees. For this purpose they used data from another study; those data were available only for enrollees in eighty-three of the ninety-eight plans. The results showed that in all eighty-three HMOs enrollees had lower mortality than nonenrollees in the same market area—on average, 25 percent less. These data suggest not only that healthier persons enrolled in the HMOs but also that the HMOs were able to differentially avoid the high costs associated with the last few months of life.

Other countries. Before looking at the issue of what might be done about selection, it is worth examining other countries’ experience. If selection is such a serious problem, why has it not been manifest elsewhere? In Canada one finds little or no evidence to suggest a selection problem, but that should not be surprising, because there is no analogous choice of insurance plan. Everyone is enrolled in the same provincial plan, and patients seek care from physicians who are reimbursed on a fee-for-service basis and thus have little reason to turn any patient away.

However, before advocates of a Canadian-style plan conclude that lack of selection is another argument for a single-payer plan, I must point out that a conceptually simple route to a single-payer plan here is to make everyone eligible for Medicare. But, as we have just seen, such a step is clearly compatible with selection. So too is the Clinton proposal for a state agency to act as a single payer and contract with competing health plans.

More generally, the United States will not replicate the Canadian experience unless it is prepared to abolish organizations that compete for enrollees and receive a uniform or near-uniform premium (for example, abolish risk contracting in Medicare). This means not only that low-option,
high-option, and preferred provider organization (PPO) plans must merge into a single fee-for-service plan, but also that plans such as Kaiser Permanente, Harvard Community Health Plan, and Group Health Cooperative of Puget Sound would have to change to fee-for-service reimbursement. Moreover, entry of competing plans into the market would have to be prohibited. Competing capitated plans, however, may well be more efficient than fee-for-service medicine, and therefore I am certainly not advocating such a radical policy. Furthermore, existing capitated organizations treat millions of satisfied customers, and as a practical matter it is unthinkable that we would return to the world of only fee-for-service providers.

In Great Britain the general practitioner is reimbursed primarily on a capitation basis and thus might appear to have an incentive to shun (“dump”) bad risks. In the traditional British system, however, the general practitioner could simply refer the sick patient—or any patient who might require substantial time—to a salaried specialist in the hospital; thus, there may have been excessive referrals, but it was not the case that bad risks could expect to find a grumpy general practitioner when they arrived at the office. The recent British reforms, however, give general practitioner fundholders incentives to select good risks, and current literature on the British system has started to exhibit concern about selection.

I conclude from this discussion that simple capitation in the United States likely will result in a serious selection problem and that the present Medicare risk adjustment technology, which is the most sophisticated we employ, is a ninety-eight-pound weakling. The president’s proposal recognizes this issue in its charge to the National Health Board to develop risk adjusters or prices to plans that vary with individual characteristics. Before coming to such price adjustments, however, I take up the possibilities for antiselection regulation.

## Antiselection Regulation

A common response when selection or cream-skimming is brought up is that it can be addressed by regulations requiring open enrollment and guaranteed renewal. Both of these are part of the Clinton proposal—that is, plans allowed in the marketplace would be required to accept any applicant who wished to enroll (up to a capacity limit) and could not drop any current enrollee (Section 1402). A moment’s thought, however, should show that this does not preclude selection; the real issues are in which plan persons will choose to enroll and how plans might influence that choice. Recall the FEHBP high/low-option example, where persons with little expected expenditure wanted a low-option plan and persons with high expected expenditure wanted a high-option plan, even though the plans...
were purely passive and took no steps to enroll a favorable risk mix.

Thus, open enrollment and guaranteed renewal do not suffice. Other regulations in the Clinton plan, however, aim at minimizing selection. A standardized benefit package, for example, makes segmenting the market more difficult; differing covered services among plans will attract different risks (for example, a mental health benefit in one plan but not in another will attract those who want to use mental health services to the former plan). Similarly, a requirement that marketing and enrollment efforts be approved by the health alliance potentially prevents such phenomena as signing up enrollees at dances for seniors (Section 1325b). Unfortunately, there is reason to suspect that such regulation will not control selection in the face of strong monetary incentives to engage in it. One can imagine the following mechanisms for selection even if regulations are in place.

**Marketing.** Despite a regulation that marketing efforts of plans be approved by the alliance, one wonders about enforceability. Because one can presume that readers of certain magazines, and probably even newspaper readers as a group, are healthier than average, even informational advertising in those media has the potential to be selective. Prohibiting advertising altogether raises free-speech issues. Moreover, consumers are asked to choose a plan, and there is every reason to inform them about the choice. Beyond targeted advertising, some health plans now offer benefits such as health club memberships. One could presume that such an offer would appeal to those who exercise and are on average good risks. Thus, such an offer could serve as a selection device. Can such “tie-in sales” be prohibited? Section 1422 of the Clinton plan says that supplemental benefits restricted to one plan cannot be offered. Even if such a benefit is not allowed, suppose the plan offers an exercise room or a swimming pool at its facilities as part of its basic benefits, arguing that exercise is good for health and that it is merely facilitating exercise. This example raises the issue of the definition of basic benefits more generally; can a plan offer more frequent preventive services, even if they differentially appeal to the healthy?

Analogous to marketing is location and outreach; group- and staff-model HMOs are likely to have more centralized facilities than other types of health plans. Greater centralization seems inherent in such organizations and may appeal to different types of risks. Although there is a requirement that plans serve all areas of the alliance, it is not hard to imagine subtle differences in location that will influence plan choice. Moreover, outreach efforts may be viewed as unprofitable or may be engaged in selectively.

**Staffing.** Plans could configure their staff so as to be unattractive to persons with certain health care problems. Indeed, it is widely assumed that enrollees in fee-for-service plans would have greater access to specialists, but that they would pay more as a result. Thus, plans with greater access to
oncologists and hematologists are likely to be more attractive to persons with cancer, plans with greater access to cardiologists are likely to be more attractive to persons with cardiovascular disease, and so forth. Staffing seems especially difficult to regulate because of the many sensible possibilities for an organized plan to substitute a general physician, physician assistant, or nurse practitioner for a specialist.

Even if a plan had an abundant roster of specialists, it could use primary care or gatekeeper physicians who rarely referred patients, thereby making the plan unattractive to persons who wanted such referrals. Indeed, the plan might financially reward its gatekeeper physicians for keeping referral costs under a certain amount. A superficial reaction might be that this is fine; those who want referrals to specialty care will pay more. The point remains, however, that the additional premium cost will not be tailored to the person’s use of services; this is clearest in the case of healthy persons who want easy access to specialty care in the event they become sick. Such persons could find themselves in a plan with a disproportionate number of chronically ill individuals. In that case, the choice of plans for healthy people will not be neutral; they will pay differentially more to join a fee-for-service plan (that is, more than the additional expected cost they impose by choosing fee-for-service).

**The patient encounter.** Beyond differential access to specialty care, plan personnel—both physician and nonphysician—could handle bad risks differently at the point of treatment. For example, they could feign a certain amount of ignorance or simply be rude to potentially high-cost patients. In general, it should not be difficult to convince a patient that he or she should go elsewhere at the next open-enrollment period, and to do so in ways that are impossible to regulate out of existence. Thus, money-losing patients could face an access problem that they can do little about, short of under-the-table payments.

**New insurance plan entrants.** Entrants are likely to experience favorable selection. For example, new plan entrants may differentially appeal to persons who do not have or are interested in changing providers; such persons are likely to be disproportionately healthy precisely because the chronically ill tend to have established physician relationships. Further, the more stringent are regulations to defeat selection (for example, regulations such as serving the entire area and approval for marketing arrangements), the higher the barriers to entry. Thus, there appears to be a conflict between maintaining effective competition through the threat of entry and minimizing selection.
Risk Adjustment Formulae

The Clinton proposal implicitly agrees that regulation will not suffice to cope with selection because, as already noted, it delegates to the National Health Board the responsibility for developing a risk adjustment formula. Additionally, it mentions the possibility of reinsurance, albeit with the hope that it may only be necessary as an interim measure. Although most of this section deals with the prospects for proceeding in this manner, I begin by considering a different approach that some have suggested; namely, that the risk adjustment formula not be developed by the national board but rather be negotiated among competing plans within an alliance. The hope is that plans that disproportionately receive high-cost individuals might detect “dumping” behavior and propose adjusters to neutralize it.

I am skeptical about this scenario on two counts: detectability and workability. Detectability is impaired by the skewness of health spending; 1 percent of the people account for more than a quarter of the dollars, and 5 percent of the people account for more than half of the dollars. Technically, the statistical power to detect skimming behavior is reduced by the high variability of spending, which will lead receiving plans to ask: What did the sending plan know—and when did they know it?

Nonetheless, one might argue that plans will know who their own high-cost patients are and could propose adjustments to account for them. But plans that would be disadvantaged by the inclusion of any given adjuster would be unlikely to agree voluntarily to add adjusters that would cost them money. And because the proposed legislation calls for budget neutrality in the risk adjustment formula, there would necessarily be such disadvantaged plans because changing the formula among plans with differing mixes of risk is a zero-sum game. Moreover, not only would plans have to agree on the nature of the adjuster, they also would have to agree on the quantitative amount of adjustment. Thus, workability is at issue. Absent voluntary agreement, there presumably would have to be some sort of administrative or judicial resolution, which effectively takes us most of the way back to the realm of the National Health Board’s developing a risk adjustment formula.

The good news for the board in discharging this duty is that there is a substantial literature on risk adjustment. The bad news is that the literature could be summarized as: We don’t know how to do it very well despite several years of trying. The literature focuses on how much variation in individual medical spending is explained by various characteristics such as age. Before coming to the specifics of this literature, I note that some quarrel with a criterion of explaining spending at the individual level and argue that any adjustment should only be able to predict group spending.

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Unless the risk adjustment brings the revenue for an individual (or family) close to the cost for that individual (or family), however, plans have an incentive to avoid high-cost individuals (or high cost within category if there are adjusters). The plan’s bottom line will always look better with the high-cost individual elsewhere.

Thus, the key piece of information is how well the plan can predict the spending of an individual (or a family if the family enrolls as a unit) relative to how well the risk adjustment formula predicts it. Much health spending is not predictable by anyone. That I was struck by a drunk driver while walking down the street but you were not causes our medical spending to vary, but such variation is presumably not predictable by any plan, and thus the formula need not predict it. Similarly, that I had a heart attack this year and you did not is not predictable; that I am at higher risk than you of a heart attack, however, is observable and presumably predictable by a physician treating us. Technically, the adjustment formula needs to predict the variance in expected expenditure, not the variance in actual expenditure.

The literature suggests that a plan should be able to predict at least 15 to 20 percent of the variance in annual spending across a random sample of the population; thus, that is the target figure for an adjustment formula. If we restrict our attention for the moment to fully prospective risk adjustment and so rule out measures of prior use as adjusters, existing risk adjustment formulae predict only a modest fraction of the 15 to 20 percent figure, around 10 percent of it if age, sex, and location are used, and around 20 to 30 percent if various health status characteristics are accounted for as well. Thus, the bulk of the variance that a plan could explain is not accounted for by the fully prospective characteristics that have been studied.

But how good does the risk adjustment formula have to be? Is predicting 20 to 30 percent of the predictable variance good enough? The literature is not reassuring on this point either. Unfortunately, the amount of profit a plan can make by exploiting its private information on risk (that is, information available to it and not to the regulator) is a nonlinear function of the amount of that information, and, from the point of view of the regulator, the nonlinearity is in exactly the wrong direction.

To illustrate, begin with the extreme case of no risk adjustment. Then, if a plan can costlessly rid itself of everyone on whom it expects to lose money and enrolls a random sample of the profitable population, over half of its revenue (55 percent) will be profit. This figure makes abundantly clear the strong incentives for selection in the absence of any risk adjustment. Now, however, suppose the formula put forth by the regulator could explain 70 percent of the explainable variance, a figure well beyond all existing methods that do not account for prior use. Unfortunately, the maximum profit that plans could make only falls to 39 percent (a 29 percent fall).
other words, if no risk adjustment leaves unsatisfactory incentives, and if actual use is ruled out as an adjuster, risk adjustment technology has to make major leaps forward to render those incentives insubstantial.\textsuperscript{15}

How likely are major leaps? Existing studies employ a variety of characteristics and, using different data sets, yield similar results. Furthermore, what seems to me the most likely direction for improvement, accounting for the presence and severity of specific chronic conditions, runs into the mathematically inconvenient fact that amount of variance explained is proportional to the prevalence of the characteristic being considered. (Across diseases, it is also a function of the expense of treating the disease.) As a result, accounting for a rare condition in the formula only yields a small improvement in explained variance. Thus, I think the expectation for further research is for modest improvement. Nonetheless, I strongly support the research on this topic called for in the Clinton plan (Section 1544); even modest improvement could readily justify the relatively low research costs-and there is always the possibility that I am too pessimistic.\textsuperscript{16}

\textbf{Whose Treatment Methods Are Used To Adjust, Anyway?}

If the difficulties just described are not daunting enough, the risk adjustment problem is compounded by the variation in the treatment of seemingly similar patients. Existing risk adjustment formulae generally use data from the fee-for-service system to assess, for example, how much more a depressed patient costs to treat than a nondepressed patient-and thus what the magnitude of the risk adjustment for depression might be. An HMO or a managed care plan, however, may treat a given problem in a different, potentially more efficient manner. For example, the HMO may treat a depressed person with three group therapy visits, whereas a fee-for-service psychiatrist might use ten individual visits.\textsuperscript{17} Thus, if a depression index were a risk adjuster, the coefficient of that adjuster (how much payment changes with changes in the index) will depend on whether one calculates it with HMO (managed care) data or with fee-for-service data.

Furthermore, one HMO's treatment style may differ from another's. Consequently, even if the formula were exactly right (incentive-neutral) for any given plan, it could easily give another plan with a different treatment style an incentive to select. To risk-adjust properly when treatment styles vary, one has to know which style is desirable, something we often do not know and which may differ for desirable reasons in any event (for instance, patients with lower back pain may sort themselves into the mode of treatment that works best for them, as may depressed patients).
Actual use. I believe that the only satisfactory short-term—and very likely longer-term-direction for policy with respect to these issues is to include actual use as a risk adjuster, something sometimes referred to as partial capitation. Much of the literature has tested prior use (generally, use in the past year) as an adjuster; typically, prior use has been an important adjuster, as measured by the amount of variance explained.

Rather than prior use, however, I favor current use as an adjuster for practical reasons. I focus on practical issues because, with the exception of those who die or change plans, prior use and current use do not markedly differ in their incentive effects. To illustrate, suppose that a plan is reimbursed fifty cents on the dollar for use last year, or fifty cents on the dollar for use this year. In other words, half of any use today will be reimbursed next year under the first scheme; it will be reimbursed this year under the second. Thus, unless turnover is large, the only difference in incentives between the two schemes is a small discount factor.\(^{18}\) (Even the discount factor disappears with a modest adjustment in the weight on use.) Current use, however, obviates the initial implementation problem of obtaining prior-use data and deals straightforwardly with the costs of those who die.

Indeed, the reinsurance notion mentioned in the Health Security Act is a crude version of an adjuster based on current use, assuming that specific high-cost cases trigger a higher payment.\(^{19}\) For example, cases costing more than $25,000 might be partially or fully reimbursed for the overage. Cases between the reimbursement level and the threshold, however, would still be unprofitable; if plans are reimbursed $1,800 for an individual whose treatment they expect to cost $20,000 for several years, the patient may well have access problems.

Blended rate. To mitigate access problems, a blended rate seems preferable to threshold reinsurance; part of the payment to the plan would be a capitated payment, as is now proposed; part of the payment would vary with current use, just as payment under fee-for-service. The proportion varying with use, however, might increase at higher levels of use to keep the incentive from discriminating against a predictably high-cost patient from becoming too large.\(^{20}\) If a global budget is adopted, the fee-for-service component would be kept within that budget by adjusting unit prices so as to satisfy the budget.\(^{21}\)

Capitation relative to fee-for-service has desirable incentives for less costly production but undesirable incentives for risk selection. This trade-off seems to me inescapable.\(^{22}\) The terms of the trade-off can be improved by adjusting the capitation rate for factors that cause a person’s expected cost to vary-what now goes by the name of risk adjustment—and by
aligning fee-for-service payments more closely with marginal cost, as has been the intent of recent Medicare physician payment reforms. In the end, however, both payment systems can at best approximate the relevant cost figure (for capitation, the expected cost of treating the person; for fee-for-service, the cost of the service). In short, pricing errors are inevitable. Elsewhere I have argued that a mixed or blended system is better than a pure system because it averages these errors.

There are unresolved issues with this proposal. In particular, how partial the capitation should be is an empirical issue that probably can be settled only with some actual experimentation. One could imagine using different blends in different alliances and observing the results. This may require a change in the legislative language to allow the national board the flexibility to vary deliberately the risk adjustment formula in different areas. It is also an unsettled issue of what “practice style” should be used when estimating the quantitative size of various risk adjusters.

Blended payment mitigates the problem of inadequate risk adjustment at the price of reducing incentives for low-cost production. The following comment on a detail of the Clinton plan assumes that either blended payment is not adopted or, if it is, the weight on actual use is insufficient to keep selection problems manageable.

The 120 percent price limit. A fully prospective formula rests uncomfortably with the requirement in the president’s proposal that alliances need not contract with plans priced at more than 120 percent above the alliance weighted average premium (Section 1321). One possible intent of the 120 percent requirement would be to constrain the amount of tiering or inequality. Another would be simply to reduce cost by bringing leverage on high-cost plans. Several will quarrel with either intent (arguing that if people are allowed to spend more money on autos, they should be allowed to spend more money on health plans as well), but accepting the intent for the sake of argument, the proposal seems to assume a greater capability for risk adjustment than the data cited above support. Thus, the 120 percent provision should, in my view, either be abolished or greatly relaxed until experience shows that selection is not a major issue.

Moreover, if the annual weighted average premium increase in an alliance area exceeds the permitted increase, the draft Clinton proposal calls for the alliance to reduce fees and thereby premiums for noncomplying plans (Sections 1406 and 6012); initially, a noncomplying plan is simply a plan with a premium in excess of the permitted regional alliance average. Fee reductions could, however, lead providers to abandon certain plans with attendant problems for patients in those plans.

More generally, the proposal to target premiums of noncomplying plans appears to assume that the variation across plans in premiums after risk
adjustment stems mostly from waste or amenities rather than from differing mixes of unmeasured patient characteristics. The data cited above, however, give little support to that assumption.

Quality outcome reporting. A different kind of risk adjustment issue arises from the Clinton proposal for quality reporting on health plans using outcome information. Insofar as plans have private information about outcome, an analogue of the risk adjustment problem arises. Suppose, for example, a plan is judged on the proportion of patients with high blood pressure who are controlled. If a plan knows a certain hypertensive patient is not likely to comply with medication regimens, it has an incentive not to want that patient. Although not all outcome measures are subject to such problems, specifically those that are independent of a patient’s action or that can be adequately adjusted, many will be; outcome measures used in a report card thus will have to be chosen with care. The Clinton plan recognizes this problem in Section 5003, which says that an outcome-based measure shall be one “with respect to which an adequate risk adjustment can be made.” Just as with the adjustments for cost, however, the issue remains as to the adequacy of the technology for adjustment. Moreover, there is the danger of plans’ distorting their efforts to address less intensively the measures for which adequate adjustment is not available and which consumers are incapable of directly monitoring.

Concluding Comment

The difficulties of adequate risk adjustment are most certainly not an argument for the status quo; inadequate risk adjustment lies behind many current problems. Nonetheless, without adequate risk adjustment the president’s plan may fail to achieve three of his goals: security, choice, and savings. Indeed, without adequate adjustment not only the president’s plan but other reform approaches seem likely to fail to achieve these goals.

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NOTES

1. The Clinton plan proposes that premiums vary with family structure. Though perhaps not thought of as a risk adjuster, such premium variation does in fact serve that purpose.
2. For individual mandate proposals, the problem of inadequate risk adjustment is most pronounced if premiums do not adjust for risk so that insurance plans effectively redline and do not sell to poor risks. If this problem is addressed with guaranteed issue provisions, selection problems similar to those of the president’s plan arise. If, contrary to my expectation, premiums do adequately adjust for risk, this proposal needs a
mechanism for transferring funds to the high-risk group; otherwise, there is no effective insurance against becoming a poor risk. A similar problem arises for medical savings account proposals that include insurance.

3. The analogue is with airline competition in the era of regulated fares; on profitable routes with multiple carriers, airlines competed away the profits, typically by scheduling frequent flights with modest load factors. See also P.J. Held and M.V. Pauly, “Competition and Efficiency in the End-Stage Renal Disease Program,” *Journal of Health Economics* (August 1983): 95-118.


13. Ibid., Table 4, line 6.

14. Ibid., Table 4, line 3.

15. Less-than-perfect risk adjustment can in some cases increase the profitability of selecting against particular individuals relative to no adjustment. For example, suppose the only adjuster is age. Suppose further that there is only one disease and the cost of treating a person with the disease does not vary with age. Suppose older persons are more likely to get the disease; hence, medical costs rise with age. With the adjuster, plans are paid more for enrolling older persons. In this case, plans will have an even stronger incentive than with no risk adjustment to discriminate against younger individuals with the disease, but less of an incentive to discriminate against the more numerous older individuals.
individuals with the disease.

16. Because of the nonlinearity of maximum profit as a function of the information differential between the regulator and a plan, every additional increment of explanatory power is worth more to the regulator than the increment before it.


18. If reimbursement based on prior use applies only to current enrollees, there is more of a financial incentive than with current use to keep a losing patient in the plan (the plan is reimbursed for today’s use only if the individual stays in the plan); however, a losing patient today will on average be a losing patient for many years (Newhouse et al., “Adjusting Capitation Rates”). I am thus skeptical that this difference is crucial in terms of the plan’s incentives to discriminate against bad risks. Moreover, the incentives to design the plan so the bad risks will choose not to enroll in the first place are greater if reimbursement is based on prior use.

19. The reinsurance also could be of the form that enrollment of an individual with a specific condition would trigger a higher payment; alternatively, it might be of the form that specific treatments, such as bone marrow transplants, would trigger higher payments. The latter is a modest version of a payment based on current use.

20. Reinsurance above a threshold is a special case of this proposal.

21. The analogue of the conversion factor in the Medicare fee schedule would adjust so as to satisfy the budget.

22. Fee-for-service in principle would have the proper incentives if fees were set at marginal cost (ignoring moral hazard). M.V. Pauly, Doctors and Their Workshops (Chicago: University of Chicago Press, 1980). Apart from the problem that we cannot do this in practice because we do not know marginal cost, it is also impossible if there are economies of scale so that prices have to be set above marginal cost for the physician to break even.

23. Health plan managers sometimes object to partial capitation on the grounds that they need to know a budget figure to manage the plan. This argument seems peculiar for two reasons: (1) In general, there are real marginal costs associated with utilization. Thus, with partial capitation if a plan has above-average utilization, it will be (at least) partially reimbursed for the additional costs and conversely. Reimbursement would seem preferable to forcing the plan to “eat” the costs. (2) There is no absolute budget certainty; people disenroll. Thus, we are talking about the degree of budget uncertainty. The example of large fee-for-service group practices, however, such as the Mayo Clinic, suggests that the degree of uncertainty I envision is manageable. Such practices have no weight on a capitation payment and thus face even greater budget uncertainty than the partial capitation discussed here.


25. Additionally, either prior or current use as an adjuster would require encounter-level data from all plans, but some group- and staff-model HMOs historically have not been able to provide such data. Because the Clinton proposal would require such data (Section 5101), its enactment would render this concern moot.

26. The draft Clinton plan of 7 September 1993 includes as well an injunction to alliances to target the premiums of plans with above-average cost growth if the weighted average premium increases by more than the allowable year-to-year increase. Such an injunction also appears to assume better risk adjustment than is possible, but it appears to have been dropped from the act.