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HEALTH RISK ADJUSTMENT

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Health care reform issues and Society of Actuaries research activities will be discussed. There is a great deal of work and research that need to be done to develop a workable system.

MR. WILLIAM R. LANE: Risk adjustment has been included in essentially every federal health care reform proposal to date. It's also been included in several state health care reform proposals, including some that have been enacted. New York has implemented it within the state's small group reform legislation, but otherwise it's not yet implemented anywhere in the country and no one truly knows how best to do it. A number of people are claiming it can't be done. Others feel it can be done, but the evidence is still out. Last but not least, a lot of people are trying to work on the issue to see how best it can be done.

What we hope to give you is an overview of where risk adjustment stands at this point in time, some of the early results from some studies that have been performed, some of the issues, some of the problems, and some of the difficulties in attempting to implement risk adjustment. Since we do have a short session, in the interest of time, I'm going to introduce all three panelists first, and then we'll go through the proposals.

First to come to the podium will be Alice Rosenblatt. Alice is currently working for Coopers & Lybrand. She's been working there since February 1994. Prior to that, Alice was senior vice-president and chief actuary of Blue Cross/Blue Shield of Massachusetts. In particular, she chairs the American Academy Risk Adjustment Task Force and has been working on the issue for a long time, including testifying before Congress.

I'll be speaking next. I'm Bill Lane, vice-president for Mutual of Omaha. I'm chairperson of the Society of Actuaries Research Task Force on Risk Adjustment. I've also been working with the Health Insurance Association of America (HIAA) and other organizations on risk adjustment.

Tony Hammond is the last speaker. Tony is the associate director and actuary for the HIAA in the policy development and research area. Tony is also a member of the American Academy Risk Adjustment Task Force, as well a member on the HIAA Risk Adjustment Work Group.

All three of us have been involved in the issue and working together to figure out what can be done. I will say that if Howard Bolnick has a cast of thousands working together with regard to health care reform, Alice has at least a task force of hundreds with regard to the risk adjusters. There's a lot of interest in the issue, and I think it's a very important one.

MS. ALICE ROSENBLATT: I am the warm-up act, because I will be discussing the major issues and defining risk adjustment. I'll introduce another term called risk assessment. The real *meaty* actuarial numbers and issues are going to be presented by Bill and Tony. As Bill mentioned, I chair the American Academy of Actuaries Work Group on Risk Adjustment. We came out with the first monograph in the American Academy of Actuaries Monograph Series, and it was called "Health Risk Assessment and Health Risk Adjustment: Crucial Elements in Effective Health Care Reform." We came out with this monograph back in May 1993, which is when we expected the Clinton plan first to be introduced.

The work group has not disbanded with the completion of the monograph. We're continuing to work on the issue, and we expect to be producing two more monographs. The first will address some of the experience in a few states. The second will include some actual case experience studies where we've been able to collect some information from carriers. Let me start with some definitions.

Health risk assessment should be thought of as a model, or a black box. It is a way of measuring the relative deviation from the average of either different individuals or different groups. In the context that we're speaking, it would usually be how one carrier's risk pool deviates from another carrier's risk pool.

Why is risk adjustment needed? If there is no risk adjustment and rating becomes closer to standard community rating, then carriers will be motivated to avoid high risk individuals. (By standard community rating I mean rates can only vary for plan design, area and individual or family coverage; not for age, sex or other demographics, or for experience.)

Also, if consumers can choose from among competing health plans and the consumers are looking at a premium or contribution that's influenced by risk selection, they're going to make their selection with some erroneous assumptions about the actual medical and administrative efficiency of the plan. What risk adjustment lets you do is take out the distortions due to risk selection. There are other uses of risk adjustment. We can use risk adjustment to do provider profiling—to measure providers in terms of quality and efficiency. If you're trying to compare two providers, let's say two hospitals or two physicians in the same specialty to determine which one is more efficient, and you show the hospital or physicians that their own utilization rate is much higher than that of their peers, then their response is generally, "Well, I have the sicker patients." So what risk adjustment lets you do is say, "I'm going to make an adjustment to take out any distortion caused by the fact that you have sicker patients."

You can also use it for capitated arrangements with providers and other arrangements with providers that involve an incentive for their efficiency. It, again, makes sense to avoid that argument that "I have the sicker patients" by actually including an adjustment in the incentive payment.

The American Academy of Actuaries introduced a couple of different criteria for how to judge whether a particular method or *black box* is good or bad. Accuracy was obviously one of the criteria. You want the method to be as accurate as possible. However, you also want it to be practical and understandable, and to have low cost.

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In the context of health care reform, if the transfers from one carrier to another were going to be between 2–5% of premium, but it was going to cost 6% of premium to actually collect the data and do the adjustment, you would be adding a lot of cost to the system. There's also a need for timeliness and predictability. For many of you who set insurance premiums, you know that you're setting premiums three months, six months, and sometimes even nine months before the effective date. The uncertainty of not knowing the risk adjustment methodology increases the likelihood that premiums will be inaccurate.

There should be no manipulation or gaming. Whatever is done, we want to make sure that everybody is playing by fair rules. The way to do that is through careful design of the mechanism.

One of the guidelines to consider, particularly in a health care reform environment, is that the risk adjustment need is greatest the closer the rating is to pure community rating. If experience rating, demographic rating, and various other types of rating were permitted, then prospective rating will be accomplishing some of the risk adjustment. Standard community rating needs risk adjustment to take out the distortions due to risk selection. Thus, the need for risk adjustment will likely be greatest on "day one" of any reformed environment, particularly in states where there is not a level playing field right now.

In such states there may be some carriers using standard community rating and other carriers using experience rating within the same market segments. Risk adjustment will assist in the creation of a level playing field by recognizing the differences in the carriers' risk pools due to different rating and underwriting rules. The statistic "4% of the claimants generate 50% of the claim costs" is a way of emphasizing the point that, if we don't do risk adjustment and we go to standard community rating, carriers will be motivated to avoid high risk individuals. If carriers can avoid that 4% of the population, there will be a major impact on their community rates. Also, adverse selection will be tremendously impacted by whether the health system is mandatory or voluntary, and whether or not there will be plan design variation. Obviously, certain plan designs can affect adverse selection. For example, if there is one plan that has drug coverage and another plan that doesn't have drug coverage, you tend to get everyone who needs drug coverage selecting to the plan with the drug coverage. Adverse selection is increased if you don't have standard plans. A voluntary system where the young and healthy individuals can opt out of the system entirely, will also create adverse selection.

One of the examples of a risk adjustment mechanism that's in place is New York Regulation 146. Bill and Tony will give you additional details on this. Basically, New York Regulation 146 requires community rating in the individual and small group market and requires risk adjustment through two methods. There is a prospective age/sex factor that determines a transfer between carriers, and there is a high cost condition reinsurance pool. There are preset contributions to the reinsurance pool for each person covered, similar to a prospective premium. There is a preset payment from the pool for the occurrence of a listed medical condition. The conditions are those like transplants and other very high amount claims.

I'm going to touch briefly on some of the major practical issues connected with risk adjustment. A lot of the attention has focused on "can we do it" in terms of the model or *black box* that I talked about for performing risk assessment. That's a hard enough issue, but there are also issues connected with "do we do it prospectively or retrospectively," for example.

Some of the problems are rather overwhelming in today's world. For example, some health plans don't have the data we would need if we were to use a risk assessment method based on prior experience. Capitated HMOs or staff model HMOs may not collect data on actual physician encounters. The integrity of the data is important. I'm sure a lot of actuaries have tried to use their own company's data and have run into many fields that are miscoded, which results in garbage in garbage out (GIGO).

There may also be inconsistencies in the data. When I was working for an insurance company, I found that the definition of a hospital day varied even within the one company between the HMO and the indemnity plan. When you put all of the different players together—HMOs, Blue plans, commercial carriers—standard definitions of hospital day and other data fields are needed. There are no data on the currently uninsured. If we go to a prior use method we know that the uninsureds' utilization will change if they're now covered, and we will have to make some estimates about the change. One of the risk assessment methods proposed would use drug usage data. The problem is that many indemnity plans with high deductibles for drug coverage (like \$250 or \$500) would have no information on the insurer's database on the drug claims.

Some of the other more practical problems include the fact that we don't have a steady population. If we look at an insurance carrier's population, it's changing month to month as people move from one state to another, get married, divorced, and change employers. In particular, if we think about alliances, they may move into the alliance and out of the alliance, if they change from working for a large employer to a small employer.

There may also be cultural factors. One of the risk assessment techniques is a questionnaire. The questionnaire might have questions like: How do you feel this year compared to last year? Can you walk up stairs? Can you dress yourself? Can you feed yourself? It's known that in certain cultures there would be a bias against people admitting that they could not dress themselves, so they would tend to say "yes" even if they couldn't. There are obviously also language issues and people who are disabled or too young to answer the questionnaire. There are privacy concerns, since it's possible that the employer might see the responses to the questionnaires or see the data collected. The employee might be very concerned about the employer finding out that there was treatment for AIDS or treatment for substance abuse.

The rating methods need to be consistent with the risk adjustment method. We should probably risk adjust individual and family separately, as is done in New York. As we increase the number of tiers, as is included in the Clinton plan with its four tiers, there should be four separate risk adjustment pools. If we age rate, we should probably do risk adjustment for each of the age cohorts.

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Prior use models that involve reinsurance may not adequately encourage managed care, and that's one of the reasons that the New York methodology with preset amounts is so attractive. By this I mean that, if we're going to pay 80% of the claim cost if the claim hits a number like \$25,000 or \$50,000, then there is a little incentive for the poorly managed plans to keep the claim below the trigger point.

In its May 1993 report, the AAA summarized as follows:

The Academy believes that no one risk assessment approach has been sufficiently tested in regard to accuracy, administrative efficiency, implementation issues, or expense to warrant its recommendation at this time as the best long-term approach.

The Academy recommends that if reform is enacted within the next 18 months, a nonvoluntary reinsurance mechanism, such as a high-cost medical condition system, with appropriate incentives for efficiently managing care, be used as an interim measure during the first two to three years of the reformed system. This short-term step will provide time for more research on risk assessment methods and, in addition, for a reevaluation process. At the same time, this mechanism will permit immediate movement toward risk adjustment without the need to build up complicated systems and procedures that may have to be discarded once the best long-term approach to risk adjustment has ultimately been determined.

MR. LANE: What I'd like to do now is go through, first, some risk assessment examples. This is just the front-end of risk adjustment, dealing with how you assess the severity of the individual with regard to his or her personal health status. Then, I'm going to show you some sample results of a study that's been performed very recently with regard to risk adjustment. Finally, I'm going to cover some considerations and issues with regard to risk adjustment. You'll see some overlap between Alice and myself and Tony. A lot of these issues keep cropping up as you look at them, but I think it's important for you to get a firm grasp on them. Some of them are very critical.

One method of risk adjusting, which the Office of Management and Budget (OMB) was actually proposing several years ago, is something called ambulatory care groups (ACGs). In effect, the ACG methodology starts by taking all of the diagnoses for a given individual for an entire calendar year. These are then categorized into 34 ambulatory diagnostic groups. Each diagnosis goes into one and only one of these 34 groups. Obviously, an individual could have or not have any one of those 34, so in combination the number of groupings would be two to the 34th power.

The OMB takes that huge number and condenses it down into 51 ACGs. In essence, each of those 51 ACGs represents a severity level for an individual. To give you an idea of what the OMB ends up with, here are some of the 51 ACGs:

- Acute minor conditions, and there are three of those differentiating by age
- Acute major conditions
- Chronic medical stable
- Chronic medical unstable

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- Pregnancy
- Psycho-social major, and
- Asthma.

A lot of the groupings are not as specific. In general, the OMB was not trying to get at an exact disease. The OMB was trying to get at a relative level of severity for the individual. The ACGs were based on outpatient or nonhospital care and, in general, are more appropriate or more indicative of the ambulatory environment.

A method of risk assessment that focused on the inpatient hospital side is a method called diagnostic cost groups. What this method does is to categorize every hospital admission into one of nine levels of severity. If an individual has no admission during the year, he or she is coded Level Zero. If the individual has multiple admissions, the severity level is the highest severity level of any admission during the year.

Some examples are:

- Appendicitis, Level One
- Glaucoma, Level Three
- Cerebral vascular disease, Level Four
- Aortic aneurism, Level Five
- Diabetes, Level Six
- Heart failure, Level Eight
- Nephritis, Level Nine

This method is currently being used as an experiment within the Medicare system in an attempt to risk adjust some of the HMOs.

Another method of risk assessment is, of course, New York Regulation 146. Tony will talk about this in detail, and it needs to be included because it's the only living example of risk adjustment that's currently up and working. It was adopted as part of the small group and insurance reform legislation in New York. It's a combination of a demographic and age adjustment, and a form of high-cost reinsurance. It has a very short list of reinsured events. It covers such things as transplants, intensive care, neonatal, and AIDS patients.

As Alice mentioned, there's also a form of risk adjustment that is a self-assessment. The Rand Corporation has developed a 36-item health survey that's been used by a number of HMOs. It's based on self-assessment. It surveys the individual participants. It looks at health status and functional status, but it's not disease specific. It's not asking "Do you have diabetes?" It's asking generalized questions with regard to health status.

There is, as Alice said, a need to correct for bias with such an assessment, because there can be different results based upon the way people answer questions or even, in fact, turn in the survey. It has been proposed by a number of HMOs for quality or outcomes measurement. Some of the sample questions that are on the Rand 36 are:

- "Compared with one year ago, how would you rate your health?" Then there is a checklist of several answers you could use.
- "During the past four weeks, have you had any emotional problems?" Again, there is a checklist.

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- "How much bodily pain have you had?"
- "How much time in the last four weeks did you feel worn out?"

There are 36 questions of a similar nature throughout the study. It appears to be surprisingly accurate, but nobody has a nice, firm study on its accuracy that I've seen. It's surprising how few data are sometimes needed to do some risk assessment.

We have performed some risk adjustment studies. What I have for you right now is based on data donated by a small number of insurance companies. We separated the data in the risk pools. The risk pools could be separated in terms of the degree of health care management or in terms of the degree of underwriting. In general, the HMO data are separate from the PPO data, and the indemnity data separate from those two. If we had individual underwriting going on for a small group block of business, the first year underwritten business was put in one risk pool, renewal in another and so forth. We ended up with a number of risk pools. We threw out the small ones, those less than 1,000 lives. The remaining risk pools, on average, had about 50,000 lives in each and two years of data.

We used several methods in trying to risk adjust these risk pools. I'm going to show you just two of them. The first method uses the ACGs to risk adjust the outpatient charges and uses the diagnostic cost groups to risk adjust the inpatient charges. We also attempted to do something that was much less data intensive to see how well that might work. In the second example I'll show you, we used simply the age of the claimant, plus a selected number of hospitalizations—roughly 30 diagnostic related groups (DRGs) combined into seven categories.

In essence, the second approach is very simplistic and not data intensive, but does seem to provide some fairly good risk adjustment as well. In Chart 1 are the original 15 risk pools and the average charge per person in those risk pools. We've taken out the effects of negotiated charges. These are normal billed charges. We've also taken out the effect of deductibles and coinsurance. This is the total covered charge per individual. We have considered zero claimants, so all insureds are averaged in.

As you would expect, the average charge per person varies all over the map for what was within the system before risk adjustment. Risk adjusting using ACGs and DCGs—and this is the 1991 data—provided a fairly level result once you were done.

If we look at the same approach in 1992, again, we get a fairly level result after risk adjustment (Chart 2).

If we use age and the selected hospitalizations, again, we get a reasonably level result (Chart 3).

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CHART 1
1991 AVERAGE COST PER INSURED BEFORE AND AFTER
RISK ADJUSTMENT USING ACGs AND DCGs

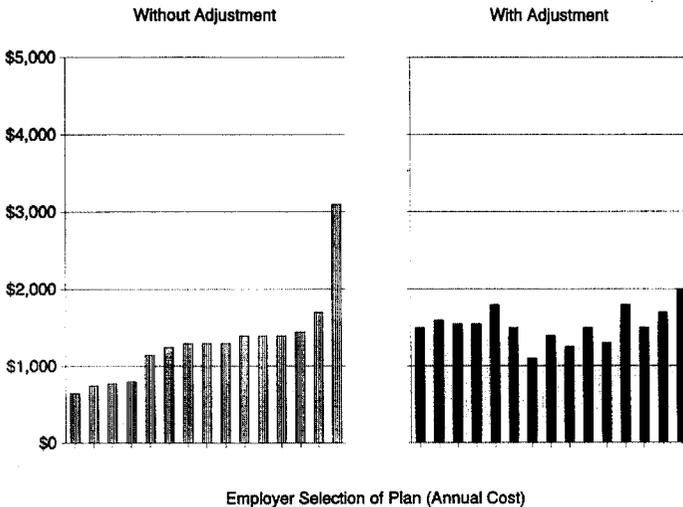
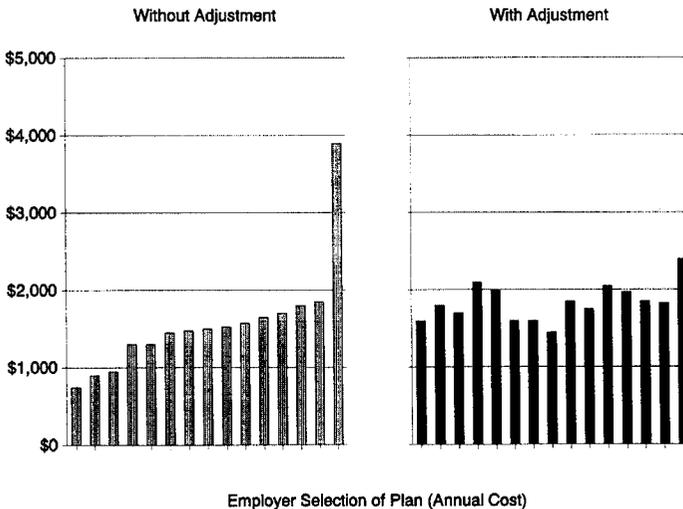
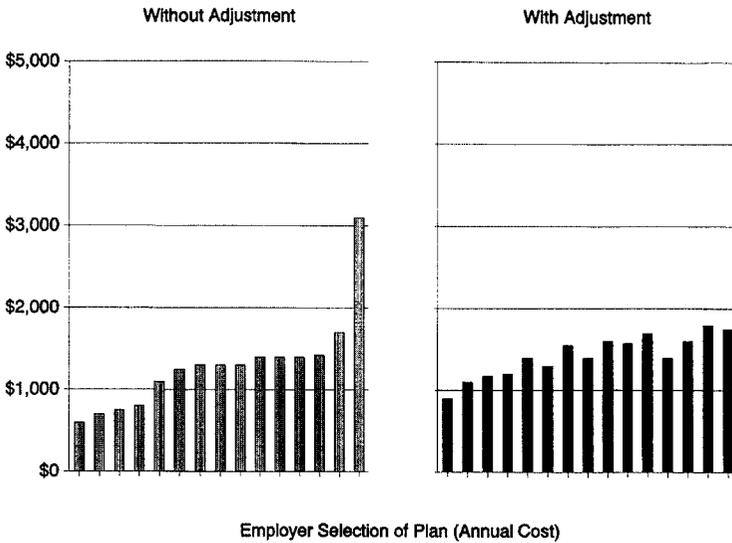


CHART 2
1992 AVERAGE COST PER INSURED BEFORE AND AFTER
RISK ADJUSTMENT USING ACGs AND DCGs



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CHART 3
1991 AVERAGE COST PER INSURED BEFORE AND AFTER
RISK ADJUSTMENT USING AGE AND SELECTED HOSPITALIZATIONS



I find Chart 3 even more interesting because, after risk adjustment, the ones on the left that are still on the lower end tend to be the more heavily managed programs as well; so that the HMOs are on the left. There does appear to be a residual effect with regard to managed care. Now, if we included negotiated discounts, you'd see a more significant result, but just the management of the care seems to still provide lower claim costs after risk adjustment. Here's the same approach for 1992 using the age and selected hospitalizations (Chart 4).

There is one issue with regard to risk adjustment that is very important. If you're attempting to risk adjust pools of individuals, it makes a critical difference how those pools were formed. Pools that are formed by employers choosing a plan and putting all of their employees within one plan obviously provide some averaging to begin with and make risk adjustment much easier. Business that is sold on the basis of individual selection, where each individual is allowed to pick from a variety of plans, is much harder to risk adjust simply because you have more risk segmentation going on. Some of the extreme high-cost patients concentrate in certain plans or certain choices, and vice versa. Those who feel they have relatively low risk—and most people can tell that—concentrate in other plans. Where employers select one plan, you have less risk segmentation. Where individuals select the plan, you have the greatest. It is always going to be more difficult to risk adjust against individual selection. We did have one risk pool which allowed us to take a look at this. This is, in essence, a risk pool that took those people who could not get insurance anywhere else. It is only those people, not a broad mix combined with others. You might call it a risk pool of last resort.

CHART 4
 1992 AVERAGE COST PER INSURED BEFORE AND AFTER
 RISK ADJUSTMENT USING AGE AND SELECTED HOSPITALIZATIONS

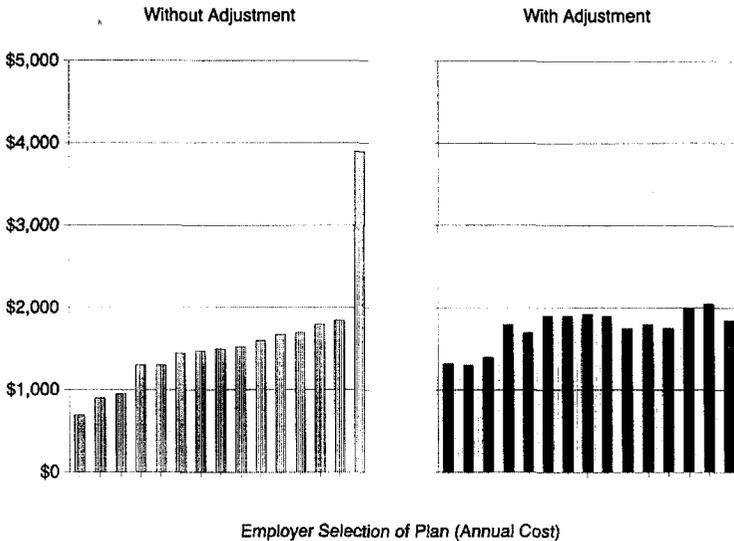


Chart 5 is the same as we looked at before for 1992 for age and selected hospitalizations, but this one risk pool has been added to it. It not only had the highest cost to begin with, but also even after risk adjustment, it has some extreme cost left in it. Risk adjustment helped in this case, and quite likely, if risk adjustment can be more sophisticated in the future, it could help more.

What it does demonstrate, however, is that the employer selection factor does help mitigate the difference in cost between individuals, and where we have to provide risk adjustment with individual selection of plans it will be more difficult. Our example is probably an extreme case, but nevertheless I think it's very illustrative.

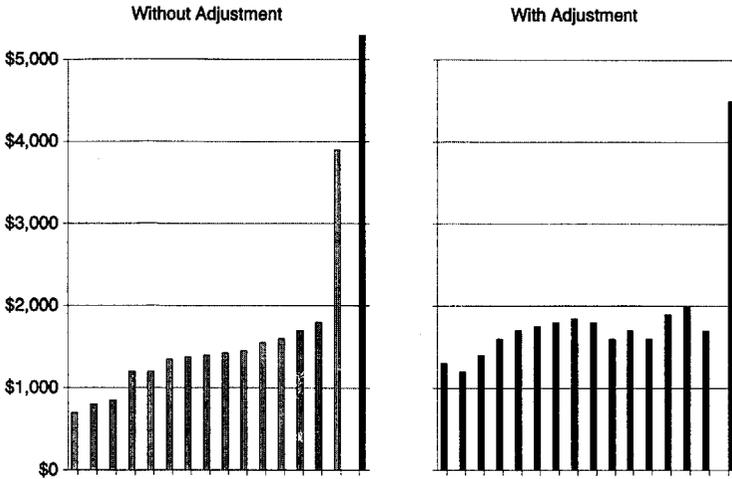
There are a number of issues with regard to risk adjustment that are important to consider. First of all, is the risk adjustment mechanism, the assessment as well as the financial transfer, going to be prospective or retrospective? A prospective model is where payments are made to the risk pool and received from the risk pool in advance of the year. A retrospective model is one where payments are made to the pool and received from the pool after all events during the year have occurred.

There are pluses and minuses for all of these forms, but they have very distinct effects upon the health plans and how they might be priced. There's also what I call a mixed model. Some people consider this approach to be prospective, so long as the amount of the benefit payments are determined in advance. Payments are made in advance to the pool, but the payments from the pool are received after events have occurred. That would be similar to the New York system where you make the

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payment in advance, but you don't receive the payment back until one of the events have actually occurred during the year.

CHART 5
1992 AVERAGE COST PER INSURED BEFORE AND AFTER
RISK ADJUSTMENT USING AGE AND SELECTED HOSPITALIZATIONS



Individual and Employer Selection of Plan (Annual Cost)

A second issue is how much do you actually reimburse back to the plan. If you're looking at a risk adjustment mechanism that includes high-cost events, the question is how much money will you pay if that event occurs. There are some who advocate that you should reimburse only the cost of the most efficient plan within the system; thereby the efficient plans are not penalized by having to pay into the system based upon a higher amount that is due to the inefficiency of other plans.

There's also a thought that you should reimburse at the average cost of all plans. If you reimburse only at the lowest cost, there's no incentive for any of the health plans to have those high-risk individuals within their pool. At best, they break even. If you reimburse at the average cost for all plans, then the most efficient plans will actually have an incentive to seek out and want those kinds of patients. Thus, you don't have the kind of access issues that you have in some of the governmental programs today where no provider wants the patient.

Another issue is with regard to the basis for risk adjustment. There are two ways to go about it. First of all, you can base the risk adjustment only on predetermined risk elements, like the diagnostic cost groupings, or the high-cost events, or something like that. You're only looking at certain specific events and triggering risk adjustment based on those.

The other way of doing it is to base risk adjustment on some form of complete health status; in other words, combining all conditions together. This could be your ambulatory care groupings where you look at every diagnosis during the year. This could also be as simple as age, where you're looking at all the events that happen on average to someone age 37. The two approaches can be combined, and in fact, the New York Regulation 146 does that.

When designing a risk adjustment system, you need to understand how much rating flexibility there is. Risk adjustment is needed because we will not have the ability to rate and underwrite like we could in the past. To the extent that rating factors are allowed, risk adjustment is not necessary and vice versa. For example, if you're allowed to rate by age, you don't need to risk adjust for age. If you're not allowed to rate by age, then you do need to consider age within the risk adjustment either directly or indirectly.

Last, but not least, another issue is the amount of funding in the aggregate that's needed to do solid risk adjusting. It's going to depend, in part, upon whether we have community-rated premiums or age-rated premiums—age-rated premiums being more targeted toward the risk and less risk adjustment necessary. The key point in all cases, however, is that risk adjustment must consider enough costs in total. There are existing differences today in the average cost per person between health plans, and it can vary widely. Sufficient money must be subject to risk adjustment so that it is possible to transfer enough money to make the average come out. It may seem axiomatic to actuaries that you need to do that, but it's not to the general public. If you have a very narrow list of events that trigger risk adjustment, it may not transfer enough money to make it possible, no matter how you do it, to actually adjust the risk across the board.

Timing is also very important with regard to funding. You need to have the timing of the funding such that the health plan has the money in order to pay the claims. You don't want to risk adjust so much, by making them pay in advance and receive later on, that you're actually putting health plans at risk with regard to solvency, because their claims occur during the early part of the year and they need the money now.

With that, I'll turn it over to Tony. Tony is going to give you an overview of New York Regulation 146 in detail.

MR. P. ANTHONY HAMMOND: The New York State risk adjustment mechanism was promulgated by Regulation 146 and was put into law in 1992 and implemented in April 1993. What I want to talk about is what the risk adjustment mechanism is, how it works, what problems were encountered during implementation, and the lessons that we've learned for the future.

As was mentioned, it's a two-component approach to risk adjustment—the first component being a demographic risk adjustment based on age, gender and geography; and the second component is a specified medical conditions list. More generically, we'd call that a targeted risk adjustment. It's targeted toward specific medical conditions. I try not to call that, by the way, a reinsurance pool per se partly because that has bad connotations for some people. They automatically think reinsurance and

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underwriting go together, and so I try to make sure I talk about it more just as a pooling mechanism.

As actuaries, we're probably more used to thinking of reinsurance when you put a certain part of your premium away and pool it for the high cost claims. That's much like what this is doing. When you talk about reinsurance in policy circles, however, people start thinking about prospective reinsurance like what was advocated for the small group reforms, which involves underwriting. Sometimes you have to talk a whole lot when you start saying reinsurance.

The requirements for how this operates are as follows. Each quarter, carriers have to submit certain things. Obviously, in implementation during 1993, there was a lot of confusion. There was activity that went on, but it basically boils down to this list of seven items that need to be submitted—the first being a data listing that includes age and sex of the insureds, the annualized premium, what the average demographic factor is for each one of these pools, what type of product it is, and so on. Then there's a specified medical condition pool summary form and the calculation of the pool payment based off of that. Then there's a summary of the demographic pool, which draws on the data listing and sort of feeds into it. It's very paperwork intensive here.

Then you have to submit another form that shows how you did the demographic pool payment calculation. Then you have to submit the payment. Then there's a certification that's required to come along with all of this that says, first of all, you've only included the small groups and individuals that are covered by the law, and, second, you didn't include anyone who wasn't supposed to be included. It makes an officer of the company actually certify those two statements.

There are other reasons for the certification, but part of its rationale is because not all individuals and not all small groups come under the auspices of the law. There's a time limit on policies that were issued as of a certain time, and that will eventually wear off and everyone will eventually be under it. Right now, the time limit covers over half. I don't remember exactly what percentage it is, but it's more than half of the total small group and individual population.

The payments have to be made to the pool administrator, which is called Alicare. Disbursements usually come a couple months after payments are made, or are supposed to, I should say. It requires a separate request and data submission to get your disbursements. Disbursements are not allowed to be used to offset payments that you have to make, in part because disbursements may be reduced proportionally to offset the possibility that there may be insufficient funds in the pool. We'll talk about why that is in a moment.

The specified medical condition pool is supposed to be fully funded by the premiums that go into it. It's supposed to represent about 1% of total annualized premium. Since this is basically prospective funding started in April 1993, and one month after the end of each quarter you have to submit your specified medical condition pool payment, the pool had three quarters of funding in 1993 at a little over \$7 million each quarter. It had about \$22.1 million in it by the end of 1993. However, the pool did not have any disbursements during 1993. Part of that is because of the

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conditions list itself. There have been some claims received in the first quarter of 1994, however.

I should also mention there is a third pool, which is the medical supplement pool. We don't talk about it a whole lot here, but it also has the same requirements. The individual and small group pool received about \$31 million, because it's a little over \$15 million going into the pool each quarter. Since that didn't start until after the second quarter, it had only received two quarters of payments by the end of 1993.

If you look at the total amount of contributions in there that are expected each year versus the total annualized premium, that would account for about 3–5% of total annualized premium. It makes it look like you're moving maybe about 4% of the premium around in the risk adjustment mechanism. We've done some studies that show us that probably, if you just took all the pools and moved all the money around within a group of carriers in our HIAA studies, you might move 8–16% of premium around totally. That gives you an idea that you're probably moving a good part of the differences in the average cost between the pools.

For specific carriers it would be more. For some carriers it might be 10–12%, although the total on average is the 3–5%. For Empire Blue Cross, it's been estimated that it would have about an 8% effect on the company's premiums. That's just to give you an idea. Empire Blue Cross, at least on paper, and I don't think the company has necessarily seen all this money yet, would be getting the largest payment from the pool. One thing I should mention there is that the law does require that, if you expect to get disbursements, you have to reflect that in your premium. They figure they don't have to tell you that, if you're expecting to make a payment, you need to increase your premiums. These data were obtained through a Freedom of Information Act request and were forwarded on to me.

Table 1 shows the transfers that are over half a million dollars, just to give you an idea of what goes on. You can see the carriers that are making payments. There are four obvious HMOs there that are making payments of over half a million, and four commercial insurers that may have various degrees of underwriting that are making large payments. Then the large disbursements are represented mostly by the plans that have guaranteed issue or have been insurer of last resort, like Empire has been over the years, and so obviously have some significant demographic differences.

Part of the reason Empire's number is so large also is because it has such a large enrollment, which is another thing I should point out. Just for completeness, I put in how much all of the other plans pay in, which is about another \$5.9 million, which represents about 40-some odd carriers, and then the plans that also will be getting disbursements. There are about 16 other plans that will get disbursements. I should also mention 13 plans have to make both payments and get disbursements where they aren't allowed to make that offsetting adjustment; so they're actually in both categories.

There is about \$3 million in escrow. This is what I was talking about earlier—how the total disbursements could be reduced. The HMOs, through one of their organizations, took New York to court on several grounds. What they finally won their case on, and this is still in the appeal process, was by saying they weren't in the insurance

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business. They were in the prepaid health care business and therefore should not be subject to the regulation. They won on that account. The last I heard, there were still some appeals going on; so what will happen in the end we don't know.

TABLE 1
NEW YORK RISK ADJUSTMENT MECHANISM
DEMOGRAPHIC POOL TRANSFERS OVER \$500,000—FOURTH QUARTER 1994)

CARRIER	PAYMENT	DISBURSEMENT
Colonial Life	\$2,748,092	
Guardian Life	2,565,442	
Blue Choice HMO	868,173	
State Mutual	815,922	
United States Life	738,011	
US Healthcare	714,687	
Independent Health Assn.	666,665	
Community Blue	591,009	
BC/BS of Rochester		\$895,130
BC/BS of Western NY		967,888
Empire Blue Cross		9,852,521
Other Paid In	5,867,912	
Other Paid Out		855,621
In Escrow		2,977,621
Total	\$15,575,913	\$15,548,781

Source: Data compiled by HIAA from 1994 Aicare New York Market Stabilization Pool Reports.

The other part that the HMOs won was that their funds should go into escrow and should not be disbursed until such time as that's been fully decided. Now, there are some other cases where ERISA plans are also taking them to court. I guess commercial insurers have also taken the regulators to court, so it's confusing what all is going to end up there.

Here are some of the problems that we encountered. Obviously, there was initial confusion of just getting this whole thing set up. Anything that's this big a change in a marketwide approach obviously is going to cause problems. There are simple things like data format. I think you're all aware of the problems in trying to get many different companies to come up with the same set of data on anything.

Another reason the disbursements were below the expected levels is partly because of community rating, forcing younger people to leave the market in a voluntary market, and the impact which that had on the regional demographic factors that were promulgated. The regulators didn't account for that expected loss of market, and so the regional demographic factors were too low, which caused the total amounts that went into the payments to be too low; so they obviously couldn't disburse them. The actual numbers are considerably below the theoretical numbers that they thought there would be.

There are obvious problems, even after people figured out what to do, with late submissions, errors in calculations, and revised submissions. The administrator

decided to deal with some of those things by first off saying that, "Well, we'll calculate what your payment should be, and then, if you want to make revisions later on, we'll do them all at the end of the year." Another issue is what do you do with out-of-state residents.

The specified medical condition pool has a chronic factor for HIV patients, which is very strict and does not recognize as much as it should. There are some administrative expense allocation questions between the pools. Then they were wondering what needs to be done on the specified medical conditions pool. Another thing that I should mention there is that they have asked the AAA to help them out a little bit in looking at that. That's part of what Alice's committee is working on.

There are some things that we can say that are positive from the experience in New York. First off, and I preface this by saying this is my opinion and not necessarily HIAA's opinion, risk adjustment can work. That has to be caveated by saying it can work when most of the market is selected by groups and it's not individuals going into a health alliance and picking wherever they want to go. As Bill was showing you, there are some serious questions when you have individual selection, whether it will work. I believe these can eventually be resolved, but New York doesn't demonstrate that yet.

The specified medical conditions pool is starting to see some claims. Whether the claims are going to end up being 1% of gross premiums, I kind of doubt. These are problems that get worked out, I think, as you go along. Premiums are moving in the right direction. The demographic risk adjustment and specified medical condition pool adjustment in combination have been shown to be fairly practical. In particular, contrary to what some people think, particularly what some managed care operations think, they have been able to come up with the data that they need to do this.

I think that's an important point because in the future, no matter where reform ends up going, and whether there's reform or not, employers and individuals are going to be demanding more information, particularly on managed care plans, to be able to do report-card-type work and see how well their plans are doing. Also, the cost for administering the pools was not as great as some people feared.

On the other hand, there are also some negative lessons that have been learned. Obviously, the legal challenges have been very disruptive. If everybody is not in the pool, it's very hard to make this work. The legal challenges just upset the whole process. The ERISA plans are arguing that they're exempt from state regulation. The HMOs are arguing that they aren't prepaid health plans. The commercials now are arguing, because of the other problems, that they shouldn't have to do it. It messes the whole thing up.

I am surprised that some of these legal challenges weren't expected. I think they should have expected to have some of these problems, but it still makes it very difficult to do this.

There are some additional administrative issues. We've already talked about what some of these problems are. I don't think I talked about definition of small groups, though. That issue becomes problematic in all of the small group reforms. Who are

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we talking about, and how might people game the system to get out of that definition if it's to their advantage?

The next thing I wanted to talk about is that it's not fair to talk about the impact of risk adjustment without talking about the impact of flat community rating, because the one affects the other and they can be confused as to what's doing it. Some of the recent press reports have made statements that the impact in New York on the uninsured, the fact that there are additional uninsureds over how many there were a year or two ago, is an indication that they needed to do universal coverage when they did this. I would argue that it's not universal coverage that's the problem. It's flat or pure community rating in conjunction with a voluntary market. Even if it weren't a voluntary market, there would still be incentives to avoid coverage for people who could avoid it.

The reality is a New York Insurance Department memo that came out and reported on the actual changes. These are what the memo called insured units, which would be individuals and families; so it doesn't include the dependents. The small group market increased by 4,286 individuals and families. The individual market decreased by 43,666, which is a 12% decrease. The Medicare supplement market increased by almost 14,000.

Now, one problem I have with the analysis that New York did on this was they then summed all that up and said there was a 1.2% change in the market, because they're offsetting the individual decreases with the Medicare supplement increases. There were 1.5 million people between the age of 55–64 in the state of New York in 1992. If there's that many people in that age group, it's not a whole lot surprising that you have 14,000 new people signing onto Medicare supplement. Some of those might be changes within the marketplace, but for the most part you can't offset the individual and small group market by changes in the Medicare supplement market. If you take that out of there and look at what the changes have been in the small group and individual market, instead of a 1.2% change you get a 3% change. If you take a look at what could happen if you had a 3% change when 12% of it is in the individual market, you start talking about increases in average premium of 10–15%. That's not insignificant.

The impact on premiums itself under any kind of community rating or rating restrictions—and it's just the degree that you push the balloon here—is that younger people, families, people with lower incomes, as a group, get hurt more than older people who have generally higher incomes and generally are not people being subsidized by the government, and so on. It doesn't make a whole lot of sense. The evidence, particularly in a voluntary market, has been demonstrated by what happened in New York.

The last thing that I would say is that the regional demographic factors were estimated to be lower partly because of this effective community rating. There also was the fact that New York didn't consider the fact that older people tend to buy more generous coverage, and so that wasn't in the factors either.

The last thing that we can say is how does this compare to the criteria. Similar to what the Academy work group has developed, I have a way of looking at what a risk

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adjustment should be. It's sort of like the Boy Scout motto. A risk adjustment has to be accurate, practical, unbiased, and inviolable or ungameable. Some of the criteria, like predictability, I put under practicality. I don't think it is practical if it isn't predictable, but I think being statistically unbiased is very important.

In terms of accuracy, I think they weren't there initially in New York, but they're getting there. I think in 1994 they'll be a whole lot closer than they were in 1993, and eventually it will be a whole lot better. In terms of practicality, I'd say it's been very practical. In fact, I think it's too practical in some cases. I take exception to their formula, which is extremely practical, but is less accurate and creates certain problems.

In terms of whether it's biased or not, I certainly think there are some problems in that area, particularly with the specified medical conditions pool, which was mentioned a little earlier. In terms of whether it's gameable, I think the whole reason that I question the practicality issue versus accuracy issue is because it is gameable by the fact that you use a carrier's actual premiums and expected loss ratio to determine the payments. If you have higher claims, your payments are higher. If you have higher premiums, your risk transfers are high.

Obviously, this creates certain incentives, particularly when carriers tend to either be a net payer or a net recipient. It would encourage you to be conservative in one direction or the other when you're calculating those things.